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Part I: Co-operation and Association

GERMANY.

SUPPLY OF ELECTRIC POWER FOR COUNTRY DISTRICTS BY CO-OPERATIVE ORGANIZATIONS.

by Dr. GRABEN, Berlin.

SOURCES:

GHARDT (Dr.): Die wirtschaftlichen Voraussetzungen, Erfolge und Organisation der Elektrizitätsversorgung in ländlichen Gebieten (*Economic Conditions, Results and Organisation of the Supply of Electric Power to Country Districts*), Darmstadt, 1910.

ZE: Ratgeber für die Gründung elektrischer Überlandzentralen (*Manual for the Institution of Regional Central Electric Supply Societies*). Berlin, 1911. Published by Julius Springer.

FF (Dr.): Der Landwirt und die Überlandzentrale (*The Farmer and the Regional Central Electric Supply Society*) Berlin, Ceres Edition.

To these may be added numerous articles published in the "Deutsche Landwirtschaftliche Genossenschaftspress" and in the "Elektrotechnische Zeitschrift" as well as the Reports of the Congress of German Agricultural Co-operative Societies of 1909 and the International Congress of Agricultural Co-operative Societies held at Baden-Baden in 1912.

An extensive bibliography may be found in the above work of Vietze.

§ I. EXTENSION AND ORGANISATION OF THE CO-OPERATIVE ELECTRIC SUPPLY SOCIETIES.

The utilisation of electric power in the country districts of Germany has made unexpected progress in recent years. The causes of this are various. It is partly to be explained on technical grounds by the progress, that is, of electrical engineering, which has rendered possible, in an economic and practical sense, the establishment of high tension currents for very

great distances; but, on the other hand, this development has been considerably assisted by the extensive propaganda carried on by the electric power works. In fact, when the supply of electricity in the urban and industrial centres was well developed, or rather when the industrial crisis of 1907-1909 checked further progress, the electric power works sought to compensate themselves by extending their attention to the country districts. Now it is certain that this propaganda was not always kept within proper limits, so that undertakings were started that could not have a healthy life. In especial, small firms showed great activity in building electric works to supply one or more villages with current, and these undertakings, founded exclusively for the benefit of the promoters, were necessarily a cause of serious loss to the farmers. The movement, ably making profit out of individual interests and local patriotism, threatened to become a greater danger, as it was able to use the legal form of the co-operative society, so dear to the agricultural population, for its own selfish ends. In consequence of this astute and untiring agitation, which shrank from no excess, a real electric fever ("bacillus electricus") broke out and spread in the rural districts. The organizations for the protection of the economic interests of the agricultural population, the chambers of agriculture, the federations of co-operative societies etc., were therefore obliged to withstand these exaggerations and, thus, they were induced to turn their attention to the problem of the supply of electric power to the country in order to give a proper direction again to the movement.

Very important reasons of economic character militate in favour of a larger supply of electric power for the country, on condition of all excess being avoided. The most solid argument is based on the growing lack of field labourers. In fact, the great industrial development of Germany has led to the annual immigration of 400,000 men for agricultural work of the first necessity. And it is not only the large farms that suffer from this dearth of labourers, but also, and to a far more considerable degree, the middle sized farms. Now, it is evidently more difficult for these latter to supply the lack of local labourers by means of foreigners. Besides, they are at a disadvantage, compared with the large farms, in respect to the employment of machine motors, and especially of steam engines, as they have not sufficient use for large motors and the work of the smaller ones costs comparatively very much more. Under these conditions, the owners of medium sized farms find the electric motor, the work of which is economical, as less power is needed for it, an exceptionally useful and important machine. The electric motor is more simple to use and easier to keep than any other machine. It is always ready for use; it is easy to clean and keep in good order. The farmer working on his own farm has therefore recourse to it even more readily than the large landed proprietor, since he has direct experience of the saving of labour due to it. The small size of the electric machines, which may be placed in any corner, against the wall or in the garret, and their absolute safety are additional reasons in favour of their use. Add to this the ease with which electric motors can be moved

in place to place and the variety of purposes which they serve. Nor must we forget the importance of electricity for purposes of illumination: even the economic advantage as a means of saving were uncertain, the lighting of the farmer's house, yard, cattle stall, barn and cellar by electricity certainly presents many advantages and many evident conveniences.

The reasons we have briefly given have led in recent years to the rapid spread of the employment of electric power in the country districts. According to a statistical return published by the Federation of German Electrical Engineers, on April 1st., 1911, there were altogether 2,700 electric workshops supplying electric power for not less than 11,000 localities. There were at the same date 698 in course of construction or the construction of which had been decided on. The above figures include, besides workshops supplying electric current, also many installations of plants for distribution of electric power, especially co-operative societies, which have been formed in large number for the supply of villages with current (*Leitungsgenossenschaften*).

Two years ago, the National Federation prepared a report on the supply of electricity to the country districts and the results were reproduced No. 6 (March 30th., 1912) of the *Deutsche landwirtschaftliche Genossenschaftspress*. From this report it was seen that there was a tendency actually prevailing in favour either of the construction of large central works for the supply of electric power to very large districts or of the conversion of the already existing minor installations into such central works. Nor are there wanting workshops supplying a single commune or a few conterminous communes, but, as a general rule, these, on account of the comparatively high cost of their installation or working, cannot stand out against the competition of the central societies, which supply immense districts, generating electric power at a very low price, at immense stations. There is no doubt that future progress will especially tend, either by the transformation of installations already existing or by the foundation of new ones, to the establishment of such central works serving large areas. Naturally, they are most widely found in regions where the population is densest and industrially most advanced, in Central, Western and Southern Germany. The provinces of Saxony, Westphalia and the Rhine especially, as also the Rhenish Palatinate, the Kingdom of Saxony and Baden, have a large number of such central electric works, and there also the largest number of proposals for new installations or for the transformation of electric workshops already existing are put forward. It is, however, worthy of consideration that even in purely agricultural districts, like Pomerania, very considerable progress has been made in regard to the supply of electric power to the rural districts. There are not only central societies of co-operative form at Lützen, Lottin and Schoschow, but a systematic transformation is in process of being carried out by means of large central societies limited but not only for areas including several districts.

The funds are obtained by the province, the district (*Kreise*) concerned and the consumers, each undertaking a third of the cost of the

installation. The local organizations are 500 co-operative societies (*Elektrizitäts und Maschinen-genossenschaften*), working as local societies for the distribution of electric power (*Strombezugsgenossenschaften*). In other districts, the supply of electric power is principally in the hands of large societies limited by shares, limited liability societies and private undertakings formed among the best known and most important firms of this class, with the support of the large banks, large industrial undertaking and tramways.

This report is confirmed by the statistics of the Federation of German electrical engineers above mentioned. According to it, in 2,526 electric workshops and installations for the distribution of electric power, for which statistics were supplied there were :

1,745	which were private property,
725	property of the city or the State,
56	the ownership of which was not known.

Now attempts are being made to prevent this prevalence of private capital which nearly resembles a monopoly. Urban and rural commune administrative district and provincial organizations are endeavouring by participation in the great undertakings limited by shares, to assure for themselves a certain influence over their business, in the interest of the public and of the consumers. And also very often the district or provincial administrations or the State appear as the only or at least the principal supporters of the undertaking.

We are especially interested in the following problem: *In what way is the agricultural co-operative movement to assist in the supply of electric power to the country districts?* Three ways are possible: first, the foundation of large central societies (*Überlandzentralen*) under the legal form of co-operative societies; second, the foundation of smaller local electric workshops on a co-operative basis; third, the formation of co-operative societies for the supply of electric power (*Leitungsgenossenschaften*) for the local distribution of the current produced by the central society. And all three methods are indeed followed. According to the *Mitteilungen zur deutschen Genossenschaftsstatistik*, published by the *Preussische Central-Genossenschafts-Kasse* (Prussian Central Co-operative Bank), on January 1st., 1911, there were altogether 343 co-operative electric light and power societies, namely:

Workshops, directly producing power	82
of these, Central Societies (<i>Überlandzentralen</i>)	16
smaller offices	66
Co-operative Societies for Distribution of Power (<i>Leitungsgenossenschaften</i>)	261
of these, for distribution at a distance or both at a distance and locally	32
only for local distribution	229

Since the date of the above return, the number of electric undertakings of co-operative character has increased considerably; and there has especially been a large increase among the societies for the local distribution of electric power. In fact, in recent years, there have been founded new co-operative electric societies, principally for distribution: very few have been founded for this latter object, above all in the Provinces of Pomerania, Silesia and Brandenburg. So also there have been started in recent years, under the legal form of co-operative societies, various undertakings for small local districts, producing electric power directly on their own account.

It would, therefore, appear that the foundation of large central societies of co-operative form has now come to a stop. Certainly, agricultural societies are disposed to choose the popular legal form of co-operative societies, for the organization of these central societies, but it cannot be overlooked that the idea meets with difficulties of various kinds in its application. The expense of installation for the large electric work-shops of the central societies is very high: these undertakings usually require large investments. The co-operative society, which is a community of individuals, is ill-suited for enterprises requiring immense amounts of capital. The principle of equality of the votes of all members, independently of the degree to which they have contributed to the formation of the capital, leads to the result that even those members, who might on their own account provide large funds, are not to be induced to contribute largely to the constitution of the capital. These shareholders would wish to have considerable rights, in proportion to their larger contributions and the greater risks they run; but the society may not grant them such rights. Hence, those who are most concerned, if they are wealthy, for example, the manufacturers, communes and districts, for the above reasons, usually abstain from participation in central societies to be founded under the legal form of co-operative societies.

There is a further disadvantage in the ease with which members can leave a co-operative society and, even if it be objected that for practical reasons a member will never leave an electric power society, the possibility of withdrawal is a disturbing element, while in reality differences of a personal character or in relation to matters of fact, or the appearance of rival undertakings may always lead to resignations of the members *en masse*.

Owing to these considerations, the idea may be shown to be prevalent among rural co-operative circles that the legal form of the co-operative society is not to be recommended for large central electric power societies. In view of the capitalistic character of such undertakings the form of limited liability societies or societies limited by shares is, in general, rather to be advised, and, in connection with these, the communal organizations of the consumers of electric power should form co-operative societies for the distribution of power. In accordance with the above observations, the legal form of the co-operative society has only been adopted in a few isolated instances for the foundation of central electric societies, above

all in Saxony. There on April 1st., 1913, there were 13 central co-operative societies at work.

As Dr. Rabe, the Managing Director of the Provincial Federation of the Co-operative Societies of Saxony, was able to show at the International Co-operative Congress held at Baden-Baden in May, 1912, neither in that province were the objections against the legal form of the co-operative society for such undertakings unheeded. But, since the communes and districts held aloof, it did not seem fitting to call for the intervention of private capitalists and so it was decided to have recourse to the co-operative form. It was thought also that, as this legal form, which is so widely popular, had been adopted, the idea of the necessity and economic desirability of using electric power would be more easily extended even to the remotest agricultural centres. Besides, the federation was careful to reduce the danger inherent in the democratic principle by which all the members have equal right to vote in the general meeting, by entrusting the board of management with a principal share in the work of the society. And, it endeavoured to correct the defects of the co-operative organization by inducing also the communes, districts and cities, to take part in it. We shall have occasion later to speak of the results attained by these large central co-operative societies.

The number of small central societies of local character constituted under the legal form of co-operative societies is greater. The statistical return of the Prussian Central Co-operative Bank showed 66 of these on January 1st., 1911, and since then they must have considerably increased in number.

But where the legal form of the co-operative society has found its largest application is in the formation of societies for the distribution of electric power from works already existing which limit themselves to transmitting it to their own members by means of local and connecting installations. However, in many cases, even the local and connecting installations are not established for their own account by the large central societies, and the local co-operative society for the distribution of electric power is only a society for the purchase of power and receives the current in large quantity from the transformer, whence it distributes it in smaller quantity to its own members.

Instead of forming special co-operative societies for the distribution of power, it would be possible for the rural communes simply to associate as such at the electric workshops. To arrange for so important and useful a matter as the supply of electric power is without doubt amongst the duties of the communal administrations and, in fact, rural and urban communes have in various ways made provision in the matter. Their intervention appears advisable also as guaranteeing a uniform and systematic local installation, facilitating the formation of the capital required, and further assuring in advance a large number of consumers. It must, therefore, in general, be affirmed, for the above economic and technical reasons, that the direct adherence of the communes to the central societies

preferable to the formation of special local co-operative societies for the supply of electric power.

Unfortunately, this principle, in itself excellent, cannot always be applied, since the adherence of the communes is very often impeded. This is partly owing to the difficulty of forming the capital, partly to the want of a sufficient sentiment of solidarity. There are always some members of the community and of the administration who are anxious to shift the financial burden the commune may be undertaking in adhering to a central electric power society. Often also party divisions in the commune hinder the undertaking being agreed to.

When the commune as a political body is not willing to make provision, a free union of those concerned is substituted for it under the form of a co-operative society for the supply of electric current: a course similar to that which gives rise to co-operative water supply societies. They also are formed when the commune cannot decide on undertaking the necessary installation for the water supply at its own expense. Similar reasons have in recent years led to the founding of many hundreds of local co-operative societies for the supply of electric power. They are often small societies with but a limited number of members. As happens often in the co-operative world, it is frequently a few energetic and willing persons who open a large field to co-operative action. And it is indeed to be hoped that larger groups will follow on the road, traced out by them when the happy result of their efforts is seen.

The co-operative societies for the supply of water or electric power resemble in their organization co-operative purchase societies. We must draw attention to the obligation of the members to have recourse exclusively to the societies for the electric light and power they have need of. While such a provision is in itself easy to understand, it might have considerable importance in case of a rival society being started.

Another provision which has been much discussed is that of the monopoly of electric plant. This means that members must entrust the installation of plant in their houses and the provision of motors and fittings only to the co-operative society or to firms authorized by it. This monopoly has been keenly discussed both in the co-operative world and in the daily press and even in Parliament. Some have wished to see in it a violation of professional liberty, and an injury to the industrial middle classes. In consequence of this monopoly, small and medium sized firms in the supply of electric plant find themselves at a disadvantage as compared with the large firms. Some have even seen in the above provision an unlawful attempt against professional liberty and an offence against the general principles of law, so that legal action has actually been taken by suppliers of electric plant not authorized by the co-operative societies. In a suit of this kind, the supreme court of appeal for Germany, the Imperial Court of Leipzig, laid it down, however, that the provision in question is not contrary to the principles of law in force. It was stated in the judgment that it is absolutely essential for the electric businesses or central societies that the connections be good and

properly carried out, as faulty work would be prejudicial to their own interests. Nor is it to the purpose to say that they might supervise the work and correct any defects; this would be, in any case, a more inconvenient system, and cause greater loss of time and heavier expense than direct execution or the entrusting of it only to certain persons or firms known to be competent and careful in the work of installation.

Opinions as to the advisability of this monopoly vary even in co-operative circles. It is easy to understand that co-operative federations and even more, local co-operative societies would be disposed to entrust the work to firms of the locality or of the neighbourhood. And it seems very natural that they should have recourse to them when they can guarantee that their work is good. And the adoption of energetic systems has not failed of good results, as may be gleaned from the declarations made by Herr Saenger, who is a president of a Federation, at the above mentioned Congress at Baden Baden. The co-operative federation of Baden, over which he presides, set itself specially energetically, to destroy the monopoly enjoyed by the large electric firms and to make free competition in the work of installation in houses possible. To ensure that the work is good, the federation has laid down certain rules with regard to it, to which those carrying it out must conform.

However much sympathy may be won by leaving the field open to competition, uniformity in the supply of materials and the work of installation, which is obtained by only dealing with certain definite firms has also its advantages, as proved by the experience of the Province of Saxony, reported by Dr. Rabe.

This course not only guarantees the uniformity and regularity of the whole work of installation, but also offers a possibility of less expenditure. Evidently firms receiving such large orders are in a position to work more cheaply; so they have been able to grant considerable reductions to the central co-operative societies in question. And these reductions are without doubt a very acceptable source of gain for the central societies, the more acceptable as the gains are apparent from the first when their income share is still very small.

What we have been saying has given us occasion often to refer to the *work of the co-operative federations for the supply of electric power*. The enthusiasm and agitation, not seldom unhealthy, in favour of the distribution of electric power in the country districts, rendered it urgently necessary to institute organizations for the objective and tranquil study of the proposals that have been put forward and to enlighten and advise those concerned. Nor did there seem less necessity for advice and supervision on the part of competent and impartial organizations during the conduct and execution of these undertakings. Wherefore, to supply the need, the co-operative organizations have often founded offices for consultation. The duties of these electrical engineering or advisory bodies especially include: the giving of opinions, explanatory lectures to those interested, opinions on the proposals of central and co-operative societies for the purchase of current, assistance in the conclusion of con-

acts for the purchase of current and the concession of electric plant, as well as the management, examination and approval of installations of electric plant and inspection of the accounts relating to them.

The first to promote such advisory and practical action in connection with the supply of electric power, was the National Federation of German Co-operative Societies. The technical office founded in connection with it, the central society for the construction of machinery (*Maschinenbauzentrale*), immediately after its foundation in 1906, offered its services to the movement, and the co-operative societies have profited by this largely. Later on, in those districts where the tendency to make use of electric power has made great advance, a number of co-operative federations provided for the constitution of their own electrical engineering divisions. In other federations, the departments for the sale of machinery or the central societies for purchase and sale undertook the work of advising in matters connected with electricity, engaging competent engineers for the purpose. In other places again, the Chambers of Agriculture or the provincial or Government authorities have founded electrical engineering offices for the purpose of giving information or advice. Thus almost the whole German Empire has been in a brief period covered by an almost uninterrupted network of competent advisory electrical engineering offices.

At the International Congress of Baden-Baden, Herr Saenger, who is president of a federation, described very clearly the advantages of these advisory offices. He showed how there has been a considerable amount saved through a careful examination of prices and the encouragement of competition for contracts of work. Nor is the preference always given to those firms that offer the most advantageous conditions, but account is taken of the general circumstances, the economic strength and the guarantee offered. As we have said above, there is free competition for the installation of electric plant in houses. And by means of free competition prices have been reduced, while the supervision on the part of the federation is a valuable guarantee of the quality of the work. The establishments of the electrical system and the installations were from time to time visited by engineers and their defects immediately reported. Of course such a system of supervision was not too readily accepted by the electric plant firms.

Where, as in the Province of Saxony, large central societies have been formed under the legal form of co-operative societies, the work of the electrical engineering officers has proceeded on a larger and more complete scale. The electrical engineering office has from the first aimed at avoiding every unreasonable subdivision due to the foundation of all societies of too little strength, and only encourages those undertakings that, on a careful examination of all the economic and technical circumstances, give promise of a prosperous development. Nor does it limit itself to acting when electric enterprises are proposed or the buildings are erected, but it attaches the greatest importance to constant vigilance in regard to those already started and gives them advice. The object of this continual vigilance and advisory action is to collect all the practical experience obtained and to effect that every undertaking concerned

may benefit by it. When it is considered that at present the large rural central societies have still no really practical experience they can make use of, we see that a collection of the experience obtained in this field must certainly be of considerable advantage.

§ 2. EXPERIENCES AND FINANCIAL RESULTS OF THE CO-OPERATIVE ELECTRIC LIGHT AND POWER SOCIETIES.

What we have said in the preceding section makes it already clear that up to the present we can speak of definite and well established experience in regard to the supply of electric power. The movement is still too recent for it to be easy to pass a judgment on it in any sense, above all in regard to the large central societies constituted under the legal form of co-operative societies.

The electrical engineering office of the Federation of the Co-operative Societies of the Province of Saxony has, indeed, given special importance to the collection of all the experience obtained and has therefore also considered it its duty to prepare detailed economic statistical returns. But it has not been wrong in abstaining from publishing the results obtained up to the present, considering very justly that there is need of much longer and exhaustive experience.

The facts that can be published, are very few and based essentially on the communications presented to the International Congress of Baden Baden, already several times referred to in this article.

It is of special importance in this connection to ascertain within what limits the legal form of co-operative societies has been assumed for the work of large central societies. In spite of the arguments brought against it, as we have already said, in the Province of Saxony several large societies have been constituted of this form; and hence the opinion of Dr. Rabe the managing director of the organization of co-operative societies in that province, in regard to the experience there obtained, deserves quite special attention.

He declared that, in cases of large new electrical undertakings, he would never advise the co-operative form. In future, electrical businesses must only take the form of large central societies for large districts. "But the larger the area for which provision is to be made, the greater will be the number and variety of the businesses and the less appropriate for the work the legal form of a co-operative society. The internal management, the keeping of the registers and the relations with members already involve much useless work, causing much time to be lost. But there is quite a special danger for the society in the fact that in its general meetings, the decisions of which are final, any individual member has the same rights as a large organization or another member whose interest in the undertaking, in consideration of money invested and of consumption, is thousands of times greater. Now in case of organizations like those of

large central societies, in which often amounts of 3,000,000, 4,000,000, 5,000,000 marks are invested, the importance of the business is too great, and its economic interest too considerable to be left to the haphazard party contest in an unruly general meeting or to be decided in accordance with personal or local interests."

It is very interesting to find here practical experience giving weight to objections we have already advanced, from a theoretical stand point, in favour of the use of the legal form of co-operative societies, almost in our own words and with our own arguments. On the other hand, it must be noted that up to the present, notwithstanding the difficulties in the way, it has been possible to maintain the central co-operative societies in the Province of Saxony in vigour. As Dr. Rabe was able to show, those undertakings formed without previous delimitation of the field of their action, without a competent technical advisory office and without sufficient capital of their own, have had, it is true, serious crises to pass through in their growth; but after these were successfully passed and they were able to consolidate their position especially by means of increased contributions from their members, the results have been satisfactory. For the greater part of these also the period when their accounts used to close with a loss is now passed, while all the other central societies more recently formed with due precautions can show good results. Already in their first working years, after payment of interest and the regular repayment of the amounts they had borrowed, they have covered their expenditure, if, indeed, naturally, they have not been able to obtain interest on their share capital. The hope, therefore, seems justified that the consumption of current may increase in the future and that then a sufficiently lucrative period for their business must ensue.

It is especially interesting to note that although electric power has only been comparatively recently introduced, the consumption of it has already made considerable progress. It was often feared that the use made of electric power in country districts would be insignificant. The idea was that agriculture would make large use of electric power only in the threshing season. But, in the Provinces of Saxony, it happens that the central society has been able to show an excellent utilisation of power as compared with that of the urban electric workshops.

According to statistics published by the Union of German Electric Workshops (*Vereinigung Deutscher Elektrizitätswerke*), the maximum utilisation of power for city workshops lasts from 2,000 to 3,000 hours. They never know of a utilisation of more than 4,000 hours. The power supplied by the central co-operative societies recently founded in the Province of Saxony is little less. There the maximum utilisation lasted between 1,500 and 2,000 hours and even reached 2,500. Such an indubitably good result is explained especially by the fact that the consumption of electric power for agricultural purposes, when extended over large areas, balances itself. Especially at threshing time, the machine threshers are not utilised everywhere at the same moment.

The threshing work is distributed over a longer time in proportion to the area served by the Central Society is larger and the variety of agricultural character of the area itself is greater.

Besides in addition to agriculture, manufactures provide a considerable number of customers in a region industrially so advanced as the province of Saxony. Interesting figures in this connection are to be found in the recently published annual report of the above federation for 1912-13. According to these, in 1911-12:

Agriculture and Small Industries used

for light	1,350,00	Kilowatt hours
for motor power	2,100,000	" "

Manufactures used

for light	260,000	" "
for motor power	2,800,000	" "

The need of electric power for agriculture and small industries according to these figures, greater than for manufactures. The large consumption for light in the case of agriculture and small industries, in comparison with that in the case of manufactures is particularly striking. This is explained, when we remember that in the manufacturing field the use of electric power for illumination of houses is very much more restricted. The large increase of consumption in 1911-1912, 160 % of that of the previous year, authorizes the conclusion that in future there will be an even larger increase. Manufactures especially are assuming continuing greater importance as consumers of electric power. So the hope appears to be well founded, that the central societies may in the future become completely remunerative and, in fact, the Yearbook of the National Federation for 1912 shows that a certain number of the central societies, although they have only existed a very short time, already show a profit.

Thus we have for:

Gardelegen	67,950	marks
Göhrde	31,120	"
Saalkreis Butterfeld	20,071	"
Weferlingen	63,930	"

On the co-operative electric undertakings of other districts it is possible here to pass a definite judgment.

From the various scattered notices appearing from time to time in the co-operative and technical press, we may, however, infer that the small local co-operative electric workshops have generally charged high rates with rather moderate financial results. Thus they charged and even 60 pf. per kilowatt hour for lighting purposes, and from 40 to 40 pf. for motor power, while the corresponding prices asked

the large central societies were, according to the quantity consumed, respectively between 25 and 30 pf. and between 10 and 20 pf. per kilowatt hour. The rates charged by the small electric workshops must be considered, from the economic point of view, as excessively high. It seems doubtful, however, whether rates of 30, 35 or even 40 pf. per kilowatt hour may signify a saving. The question, at any rate, demands attentive consideration. The above statements would confirm previous experience at small local workshops generally supply at higher rates than large ones. It must also be added that the small local workshops are exposed to feel more keenly the periodical fluctuations in the consumption of current. While in areas of large extent, especially where manufactures and agriculture are carried on side by side, time brings about a beneficent equilibrium; this is not possible when the districts to be supplied are of limited area and purely agricultural in character. The need for electric motor power is limited to a few months. Thus, for example, in a small local central society the consumption of current in June was 377 kilowatt hours, in July 405, in November, 1,656 and in December 2,148.

What sad experiences many small electric co-operative societies go through on account of lack of competent technical advice is clearly shown in the report of a small local central society of the Rhine district. It says: "Our experience has been that it is no such easy matter to found a co-operative society and to supply light and power. When it is known that there is an intention to instal electric plant, all the workshops hasten to offer the most favourable conditions and the estimate of the future return is very high. But experience has shown us that afterwards things are very different. Even in the first year it became evident that the battery and engine were not adapted to our business. We bought a new battery. This did hardly last two years when the negative poles were damaged and everything had to be renewed. The new battery after three years had again to be replaced by another and so on in the same way without any reduction of the expenditure. Yet last year the consumption had increased and we hope for an improvement."

The financial results of the many co-operative societies for supply are very uncertain. The statistical data in the Yearbooks of the National Association show that not seldom even societies that have been working for a series of years suffer losses. Probably the consumption of current and the revenue from it are too little to cover the working expenses, and the interest and sinking fund. Here again the question of rates is not of decisive importance. According to the information available, the rate for motor power is 20, 25 and 30 pf. per kilowatt hour, and for light at least 10 pf., though it rises even to 50, 55 and 60 pf.

It is evident that in view of such high rates the consumption of electric light must necessarily remain limited. Thus the class of consumers called "Dunkelbrenner", little appreciated at the electric workshops and by the co-operative societies, is formed and the businesses extend their custom with difficulty.

Experience counsels the adoption in future of the following principles in regard to the supply of electric power to the rural districts by means of co-operative organizations :

Before starting an electric business in the country, careful examination is to be recommended with regard to its economic advisability and the possibility of returns. This examination should be entrusted to competent and impartial advisory offices, such as possibly the electrical engineering office of a group of co-operative societies and other incorporated bodies. As to the small electric workshops limiting their field of action to a single commune or a few conterminous communes, as the cost of their installation and working is comparatively high, they are to be recommended only by way of exception, when there is cheap and abundant motor power and an adequate local consumption. In general, the installation of large electric workshops for very large areas, "Überlandzentralen", or a connection with some of these large workshops seems more suitable. When it is intended to start new electric workshops, attempt must be made to induce the urban and rural communes and the district or provincial administrations to adhere, so as to prevent the possibility of a monopoly of private capital. For the organization of these central societies the legal form of co-operative societies does not seem advisable, but rather that of societies limited by shares, or that of limited liability societies, always provided it is not a case for the adoption of the form of organizations in public law. For the secondary local organizations, when the commune does not intervene directly as such, the formation of local co-operative societies for supply is advisable. These, when the central society does not make provision itself, must establish the local installation, erect the transforming stations and establish the connection for the individual local consumer and then settle their accounts with the central society. For the establishment of the local system, the installation in houses and the purchase of motors, it is highly desirable the advice and supervision of the electrical engineering division of the federation should never be dispensed with.

AUSTRIA.

THE DISTRICT OF TRENT, A MODEL CO-OPERATIVE DISTRICT.

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GENERAL REMARKS.

The district of Trent is a mountainous region, lying along the banks of the Adige to the south of the great Alpine chain, which forms the watershed between the Adriatic and the river basins to the North. Politically it is subject to Austria and forms the southern portion of the Province of the Tyrol, on three sides, south, east and west, of a total length of 316 kilometres; its borders on the Kingdom of Italy (1); its population is Italian.

The area of the district is about 6,330 kms. and the population about 380,000. It is an eminently agricultural region, vines are cultivated extensively in the lower and moderately high regions (plain and hill) of the whole country and bear excellently, both as regards quality and quantity (2). The wine of the country is exported to the whole of the Austrian Empire, and in spite of high protective tariffs, finds its way even into Switzerland and Germany. Next in importance come cereals: wheat, rye, barley, oats and maize; fruit, cattle foods, tobacco, and in the warmer parts, olives (3).

In spite of the crisis in the silk industry half a century ago which lasted for a long series of years, the district of Trent, formerly an important and

(1) The district lies between 45° 40' 20" and 46° 32' 20" N. lat., and 10° 27' 30" and 11° 55' 0" E. long.

(2) The average annual yield of wine is about 750,000 hl., which, at the average price of 16-25 crs. per hl. of crushed grapes, gives a total revenue of from 12,000,000 to 19,000,000 a year.

(3) The total area of arable land in the district is about 35,000 ha. (out of 100,000 ha. productive land, arable land, meadows, gardens, orchards, vineyards and pastures), of which from 7,000 to 7,500 ha. are sown with wheat and spring crops; so that the area cultivated with wheat is little more than a sixth of the entire arable land. Of the 20,000 ha. of arable land in the plain, 7,000 are cultivated with rye, barley and oats; 2,400 with leguminous cattle food (clover and lucern), 9,000 with hoed crops, and of these 70 % with maize. From the above figures, it appears that maize is the favourite crop. In fact, the yield of wheat is but 90,000 quintals a year, barely sufficient for the needs of the population for 3 months.

ous silk producing region, still rears silkworms with satisfactory results ; worm breeding is a lucrative source of revenue for the rural population of whole country and especially of the Alpine districts, where the industry, climatic reasons, cannot be substituted by any other ; the mulberry tree rises luxuriantly in the whole country, even up to the mountani region, iks to the climate being well suited to its cultivation. The ordinary luction of cocoons is about 1,800,000 kgs. a year and yields on an age about 6,000,000 crowns a year. Livestock improvement is ied on with success in the highest valleys and on the mountains where e is abundant grazing and forage (1).

The timber trade also is a source of revenue not to be ignored ; the annual luction of timber, according to an agricultural forestry statistical return 892, should amount to about 665,700 cubic metres of a total value of 0,000 crowns.

Public education is well advanced, the district is one of the few count- that can boast a very low percentage, almost nil, of illiterates.

The emigration movement from the district is considerable : about 6 % he population annually leave the country to seek a livelihood abroad.

TABLE I. — *Emigration from the District of Trent in 1911* (1).

District (2)	Inhabitants on December 31st., 1910 (3)	Emigration to European Countries	Transoceanic Emigration	Total
P	44,242	3,709	354	4,063
iere	23,598	4,377	382	4,759
.	47,472	3,592	2,144	5,736
ombardo	21,249	660	491	1,151
iero	10,865	1,050	59	1,109
l	29,528	522	696	1,218
reto	56,992	2,255	182	2,437
ic	36,459	4,389	1,782	6,171
it	69,113	2,271	521	2,792
Total Emigration in 1911 . . .				29,336 (4)

(1) From Statistical Tables published for each District by the Rovereto Labour Bureau.

(2) The cities of Trent and Rovereto were not taken into account.

(3) The figures show the number of the inhabitants of those communes in each district which statistics were collected.

(4) This figure is, perhaps, too high. From other publications of the Labour Bureau, it ears that the emigration from the district in recent years has not exceeded from 20,000 to 20 persons.

(1) Dairies alone bring in about 5,000,000 crs. a year.

Landed property in the Trent district is subdivided; there are latifundi. The very great majority of the population consists of peasant farmers.

Small holdings, elementary education and emigration have been the determining factors in the intellectual and material development of the population and have constituted the group of physical, economical and psychological forces to which the rapid spread of co-operation in the district is due.

As the district of Trent is above all agricultural, it is agricultural co-operation that is the most widely spread there; but there are also other forms, especially those of distribution and production. Of these other forms we shall also speak shortly, beginning our account with a brief historical introduction.

§ 1. HISTORY.

The history of co-operation in the district of Trent is intimately connected with the work of the Provincial Council of Agriculture, instituted in virtue of the Provincial Law of November 8th., 1881. The Provincial Council has two divisions, one of which has its head quarters at Innsbruck, the other at Trent; this latter has for its district the area formerly belonging to the division called the Luogotenenza, which no longer exists, that is, say, the whole of the district of Trent. The district agricultural consortiums founded in the different legal districts are under the control of the Trent division.

The division is composed of a President appointed by the Emperor, a Vice-President, member of the Provincial Executive Council; an employer of the political administration nominated by the Lieutenant Governor of the Province; two members appointed by the Agricultural Department, two appointed by the Provincial Executive Council and the Presidents of the District Agricultural Consortiums.

There is a Committee or Permanent Executive body composed of members of the division, that is, of the President, the Vice President, the Lieutenant Governor's nominee, and the four members appointed by the Agricultural Department and the Provincial Executive Council and the delegates of the Presidents of the District Agricultural Consortiums.

The Provincial Council of Agriculture acts as follows:

It gives its opinion on agricultural questions when requested by the Government or the Province; makes independent proposals in regard to agricultural matters to the Government and the Provincial Executive Council, according to the subject and the competent authority, and assists the work of the District Agricultural Consortiums and those provincial societies that, according to their rules, have it for their object to concern themselves with and extend agriculture generally, or particular branches of it, or particular agricultural industries.

By means of its permanent Executive Councils, the Provincial Council must further co-operate in the carrying out of measures for the pro-

tion of agriculture at the request of the Government or the Provincial Executive Councils in their several spheres, occupy itself with agricultural statistics and keep in correspondence on agricultural matters with the District Agricultural Consortia and eventually with other societies.

The District Agricultural Consortia have the following powers:

Of intervention in establishing the subventions to be granted in the district by the State and the Province; of initiating and promoting institutions and measures for the reinforcement and better consolidation of agricultural property in the district and especially promoting more and more the progress of agricultural consortia in so far as they tend to attain certain objects, such as, for example, personal credit for the farmers, insurance etc., and of co-operating with such institutions in their work; of initiating or co-operating in the promotion of agricultural improvements of public importance and agricultural education.

In 1897 there were in the district of Trent 27 District Agricultural Consortia with 6,433 members; in 1908 the Consortia had increased to 40 with 10,611 members; in 1910 we find 30 consortia with 12,190 members; in 1913 there were 31 with 13,667 members (1).

* *

The merit of having first popularized the idea of co-operation and effectively initiated the co-operative movement in the district is rightly to be attributed to the Trent Division of the Provincial Council of Agriculture.

Already in the first year of its foundation, in 1882, the Division published in its first *Agricultural Almanac* for 1883 an article on "Land Credit," in which, after describing the situation of the agricultural class of the country, it showed the need for Land Credit and proposed its provision on the Raiffeisen system.

In the *Agricultural Almanac* for 1884 there appeared a second article explaining, in the popular form of a dialogue, the principles underlying the rules for the "Social Loan Banks on the Raiffeisen System"; in the *Almanac* for 1885, finally, the objects and the provisions of the rules of the Central Bank of Agricultural Credit were explained on the same system. The same *Almanac* contained the translation of the "Model Rules for the Social Loan Banks of Raiffeisen System."

These articles aroused keen interest; ample discussion ensued, in which, however, the idea prevailed that the Raiffeisen system could indeed be successfully applied among a people like the Germans, but that it was not likely to succeed with other nations or the Latin race.

The Trent Division of the Provincial Council of Agriculture, therefore, left public opinion to express itself freely on the important question and followed attentively the proposals put forward, not, however, neglecting to keep itself informed of what was happening elsewhere in connection with

(1) See the *Agricultural Almanacs* of 1898 (page 456), 1908 (page 569), 1911 (page 599), 1914 (page 408).

this subject. Thus the Council was able to show that Raiffeisen's ideas, which had become deeply rooted in the Rhine lands and in South Germany, had already crossed the frontier, and, overcoming preconceived antipathies, were rapidly advancing even in France.

The Trent Division was thus able to show that the Raiffeisen principles were not only applicable to populations of German race, the rather as the co-operative idea had already found numerous disciples even in Italy, where the system was introduced in 1889 into Lombardy, Piedmont, Tuscany, the Neapolitan Provinces and above all, into Venetia, through the action of the Hon. Signor Wollemborg, who was the apostle of the co-operative idea in Italy and who just that year had founded an Italian Federation of Rural Loan Banks, of which there were 50, with already 3,000 members, that had distributed no less than 1,000,000 francs in small loans. Nor was it otherwise in the Austrian Provinces, where the movement, in favour of agricultural co-operation on the Raiffeisen system was extending, in spite of the geographical, ethnographical, political and economic differences between the various regions, above all in the Provinces of Salzburg and Upper and Lower Austria, where the system was early applied, as has been shown in various articles published in this Bulletin.

As soon as the 1st. Division of the Provincial Council of Agriculture adopted for the German Tyrol the model rules compiled by the Provincial Executive Council of Lower Austria, the Trent Division published an Italian translation of them in the Agricultural Almanac for 1889 (1), together with an exhaustive article on "Personal Agricultural Credit" (2) and recommended them to the Social Banks to be eventually started in the District. Then, the Trent division published the rules for a "Co-operative Society for the Purchase of Farm Requisites" (3), compiled by the Trent Co-operative Bank to which the Trent Savings Bank made special donations: and it was just these societies that aimed at giving an idea of the practical application of the fundamental principles of the Raiffeisen system, that is to say, unlimited liability and co-operation, that by reason of their simple organization first made progress in the district of Trent.

Nor did the work of the Trent division in behalf of co-operation in the district stop here.

The Province contributed efficaciously to the progress of the Co-operative Societies and Rural Banks, granting the Trent Division financial assistance enabling it to assign to each co-operative society or rural bank an amount of not more than 200 florins, besides the printed matter and registers required. The State had already made provision for the wine societies by a credit granted in order to reduce the damage caused by the clause favouring Italian wines.

But, as soon as the first difficulties had been overcome, the need was felt of federating the various banks together for common purposes; in fact

(1) pages 286-315

(2) pages 281-286

(3) pp. 315-320

y were of delicate structure and had need of a correct and irrefragable administration to gain and keep the confidence of the public, on which its very existence essentially depended. On the one hand, a common organization was needed to control the movement, aid it to extend and give it a clearness of aim, that is to say, a Federation; on the other, a central institute was required to equalise the need of the several banks for credit and provide them with the funds they wanted or invest their surplus funds, that is, a Central Bank.

The Trent Division of the Provincial Council of Agriculture, on these principles, therefore, promoted the institution of a Federation of Syndicates among the rural banks and co-operative societies, in accordance with the plan prepared by it and approved at the General Meeting of February 19th., 1875. The Federation was at once constituted and the Trent Division of the Provincial Council of Agriculture was largely represented in it.

The Federation of Rural Banks and Co-operative Societies of the Italian Portion of the Province soon subdivided itself into two branches, one for the rural banks, the other for the co-operative societies; it appointed its secretary and inspector, organized and gave two courses of instruction, one for the bookkeepers of the banks, the other for the warehousemen of the co-operative societies, published its own newspaper, first as an appendix to the *Agricultural Bulletin*, and then separately under the title of "*Co-operative Trentina*." Soon after the "*Banco di S. Vigilio*" was founded as a Central Bank of the Co-operative societies, shortly after transformed into the "*Banca Agricola*." Assisted and controlled by these and other measures, co-operation spread rapidly in the district of Trent, so that already in 1877 the Imperial Minister of Commerce, Count Ledebur, on visiting the Federal Exhibition at Trent, on the occasion of the sixth Austrian Wine Makers' Congress, said that the district was one of the most advanced in regard to co-operation.

When the first impulse had been given to the foundation of agricultural associations for credit and distribution, the co-operative principle by its gradual progress and co-operation assumed all the other forms already successfully adopted in other countries. Hence we find also in the district of Trent: Electrical Consortiums, Brocade Consortiums, Wine Societies, Bakers' Societies, Mixed Societies for Distribution and Credit, various other Consortiums, Dairies etc.

In order to assist all these institutions in their development, the Trent Division organized among its own members a *Council for the Development of Agricultural Co-operation*, to which were referred all the applications for subsidies and all questions generally affecting the co-operative consortiums, under the control of the Provincial Council of Agriculture and is composed of delegates of the Tyrolean Provincial Mortgage Institute, the Federation of Rural Banks and Co-operative Societies of the District of Trent and the Agricultural Institute of S. Michele on the Adige, while the Provincial Executive Council and the Imperial and Royal Government are free to send representatives to the meetings. We shall terminate this brief account of the work of the Provincial Agricultural Council in behalf of co-operation, with a

reference to the *Co-operative Society for the Exportation of Viticultural Produce of the District of Trent*, with head quarters at Trent, founded in connection with the *Wine Makers' and Viticulturists' Association of the District of Trent*, which latter had, in terms of its own rules, to protect the interests of agriculture and the wine trade. As, however, the association could not, owing to the provisions of its own rules, take a direct initiative in many questions, recourse was had to a co-operative society for exportation, which uniting all those interested in viticulture and winemaking, is making active propaganda and studying every means to make the produce of the region known and appreciated, and is promoting and protecting the trade both abroad and at home.

The association was dissolved in 1906, after obtaining the abolition of the clause in favour of Italian wines in the Italo-Austrian Commercial treaty, which had seriously damaged the winemaking industry of the district; the co-operative society, to which more than 1,500 producers at once adhered, is even now working out its programme on a large scale and regulating the situation of the market in its position as an intermediary between producers and the trade.

The work of the Trent Division of the Provincial Council of Agriculture has also been fruitful in promoting livestock insurance societies and the dairy industry.

Before closing this portion of our study, we shall also say a few words in reference to the *Consorzio Atesino S. Michele-Sacco*, founded in accordance with the Provincial Law No. 26 of April 23rd., 1879 for regulating the course of the Adige and reclaiming the land of the valley traversed by that river; the work called for an expenditure of almost 11,000,000 crowns, part of which was met by the State and part by the Province, and the rest by the Consortium. By the Provincial Law No. 51 of December 30th., 1896, to the above Consortium was entrusted the maintenance of the work carried out up to date; if, however, in accordance with new laws, further works were to be carried out, in agreement with the Consortium, in its district, these also must be maintained by the Consortium.

The name of the Consortium is *Consorzio di Manutenzione del Reggimento dell'Adige S. Michele-Sacco*. Its action, the rights and duties of its members, its relations with the contributing organizations, the provincial and Government authorities, are fixed and particularised in its Rules.

The business of the Consortium is conducted by the plenary meeting of Delegates, the Executive Committee of the Consortium and the Presidential Bureau.

In terms of § 53 of the Austrian law on Waters No 64 of August 28th., 1870, the plenary meeting of delegates has to deal with all the business of the Consortium except what is reserved for the Executive Committee and the Presidential Bureau. Its duties are specified in § 15 of the Rules. The Committee of the Consortium is the executive authority for the Delegates meeting; its sphere of action is fixed in § 16 of the Rules. The Presidential Bureau represents the Consortiums with third parties in law and elsewhere and has charge of current business, and, in addition, the whole duty of ma

ement and administration, as is usual in such societies (see § 17 of the laws, specifying the duties of the Presidential Bureau).

In terms of the law, every landholder in the territory of the co-operative society, shown on the special cadastre, which is kept by the Consortium itself, is a member of the Consortium. Membership of the Consortium is a real imprescriptible obligation attached to the soil, according to § 61 of the law No. 64 of August 28th., 1870 on Waters. To new supplementary works the State contributes 50 %, the Province 20 % and the Consortium 30 %.

The cost of maintenance of all the works, for extinction of debt and the office expenses is covered by the contributions of members and those on the River Basins, the Southern Railways, the Trent-Male Electric Tramway, the State Roads and the Valsugana Railway. The contributions of members and the additional amounts to be subtracted from each year's revenue from direct taxes in the territory on the banks of the river (§ 5 law No. 51 of December 30th., 1896) are collected by the Imperial and Royal Taxation Offices (see also § 6 of the Rules) (1).

The *Consorzio Atesino*, supported by the State and the Province, has given excellent results and has largely contributed to the development of agriculture in the district of Trent and to the economic progress of the country. It was our duty, therefore, to refer also to this powerful institution before passing on to study and examine co-operation in the district of Trent in all its varied manifestations.

§ 2. CREDIT CO-OPERATION NOT STRICTLY AGRICULTURAL.

A. — *People's Banks.*

(a) Co-operative Banks.

(Registered Limited Liability Economic Consortiums).

The *Trent Co-operative Bank* is a limited liability co-operative association, founded in accordance with the law of April 9th., 1873 (Bulletin of Imperial Laws, No. 70) the object of which is to obtain credit for its own members by means of mutuality and savings. The capital of the society is unlimited and is made up of shares (shares in the business, according to § 76 of the law) subscribed by members, of the value of 20 crowns each, general reserve fund composed of the reserve fund of the consortium, local reserve funds of the head office and the branches and special funds instituted for particular operations. As every member, in accordance with § 76 of the law of April 9th., 1873, is personally liable not only for the amount

(1) For further information, see the Report of the Technical Bureau of the Adige Consortium in 1913, bearing title of "*La sistemazione dell'Adige e la bonifica della Valle de Fieche a Sacco*" Trent. Trent Art. Press, 1913.

of his shares but also for a further amount equal to the shares, the capital eventually consists in the credit of the Bank to the members, in accordance with chapter II of the same law of 9th., April, 1873. The society may, in order to increase its business, receive money on loan and deposits, at interest or not, on the security of its assets. The members obtain credit within the limits and in the manner laid down in the Rules, they have a right to vote at the meetings and participate in the property and profits in proportion to the shares they possess. The contributions to the funds of the society, its liquidation etc. are regulated by the provisions in Chapter III § 76-86 of the law No. 70 of April 9th., 1873.

The operations conducted by the consortium are the following: the society lends and discounts bills of exchange, invoices, certificates of work, lends without guarantee, grants subventions on pledge of personal estate, opens current accounts when two or more acceptable persons stand security or on pledge of goods, receives deposits in money by way of loan, undertakes the cash business of members and undertakes collection of money; in case of need it enters into relation with Savings Banks or Institutes obliged to publish their accounts, either to satisfy its own cash requirements or to deposit its own surplus cash; it takes charge of securities and administers them; it administers the estate of other co-operative and mutual aid societies without seeking a profit. All these operations it only conducts with its members. It does not make itself responsible for debt on loans nor invest cash in undertakings or institutes obliged to publish their accounts. If there is abundant capital, the Board of Management is empowered to invest it in purchase of public securities and land bonds, railway preference bonds and in shares in credit institutes of the country always, however, with the precautions provided by § 24 of the Rules.

The profits are distributed as follows: a portion to members as dividend, corresponding at least with 5 % of the nominal value of the share on condition of the total amount to be distributed to members not being more than 50 % of the profits shown on the general balance sheet; the rest to the general reserve fund.

The executive authorities of the society are: the General Meeting of Members, the Board of Management, the Manager with the necessary number of employees, the Committee of Control, the Discount Committee and the Arbitration Committee. Founded in 1886, the Trent Co-operative Bank had in 1913, 3 branch offices, 8 subordinate branch offices and 19 agencies.

This institute has made great progress in the 28 years of its life. The members, who, in 1907, were 4,995 and held 37,638 shares, at the end of 1913 were 5,142 and held 64,556 shares. The share capital (paid up capital and reserve fund) increased from 1,247,906 crowns in 1907 to 2,804,195 crs. in 1913. The savings deposits in 1907 amounted to 23,589,853 crowns and in 1913 reached the amount of 40,248,107 crs. The profits in 1907 were 45,865 crs. and in 1912 111,150 crs. distributed as follows:

Profits, 1912.

Proportion of the Board of Management . . .	crs.	5,366.40
Proportion of the Managers	»	1,980.77
4 % Dividend to Members	»	51,271.40
Reserve Fund to meet Losses on Securities . .	»	52,532.05
Total	»	111,150.85

The General Balance Sheet for 1907 showed a credit of 47,949,223.39 crowns and a debit of 47,903,357.95 crs; that of 1912, as seen in Table II, credit, of 62,576,992.73 crs. and a debit of 52,465,842.11 crs.

TABLE II. — *General Balance Sheet of the Trent Co-operative Bank on December 31st., 1912*

Credit.

	crs.
Cash in Hand	508,330.18
Bills and Acceptances (of the Bank and Outsiders) . . .	8,585,319.97
Current Accounts Guaranteed by Securities	4,088,365.07
» » » Bills of Exchange . .	8,228,295.40
» » » Incorporated Bodies . .	8,055,560.37
» » » Mortgage	3,922,900.93
» » with other Banks	723,468.45
Various Debtors	340,295.72
Securities Deposited in Guarantee or for Custody	10,012,130.70
Real Estate	651,000.—
Securities belonging to the Bank	5,389,169.60
Arbitrage	70,000.—
Various Receipts	2,002,150.34
Crowns	52,576,992.73

Share Capital.

153 members with 64,187 shares	1,233,740.—
General Reserve Fund crs.	116,741.18
Special Reserve Fund »	622,634.02
Total of Paid up Capital and Reserve Fund. . . crowns	2,023,115.20

Debits.

Savings Deposits	crs. 35,927,915.33	
Deposits in Current Account	2,731,869.41	38,679,184.7
Current Accounts with other Banks		1,145,456.6
Various Creditors		179,238.4
Deposits as Guarantee and for Custody		10,012,130.7
Dividends to Pay		6,997.2
Various Receipts		419,809.2
		52,465,844.1
Net Profits for Distribution		III,150.6
	Crowns . . .	52,576,792.7

On the same basis, for the same purposes and almost on the same principles, there were founded the *Banca Mutua Popolare di Rovereto* in 1881, the "*Banca Co-operativa di Riva*" and the "*Banca Co-operativa Popolare di Arco*". The Rovereto People's Bank has, to-day, 4 agencies working in various parts of the district of Trent.

In the following table (Table III) we summarise the work of these institutes as shown on their balance sheets for 1912.

TABLE III.

Institute	Savings Deposits and Deposits in Current Account	Current Accounts — Credits	Loans on Bills of Exchange	Govern- ment Securities	Reserve Fund and Share Capital	Total
	Crs.	Crs.	Crs.	Crs.	Crs.	Crs.
Rovereto People's Mutual Bank	3,684,056.04	1,827,958.78	1,248,836.36	631,070.34	165,126.70	5,337,048.22
Riva Co-operative Bank	3,062,055.54	1,682,678.63	676,702.44	310,356.30	201,055.26	5,934,848.17
Arco People's Co-operative Bank.	2,437,802.43	7,705,679.53	370,587.93	135,666.40	134,839.61	10,784,575.90

(b) *Other Institutes.*

There are in the district of Trent various other Institutes not of co-operative form, like the Trent Co-operative Bank, and having nothing common with the savings banks. Such are the *Banca popolare di Trento*, the *Banca commerciale di Trieste*, (Trent and Rovereto branches), and the *Banca Industriale di Trento* founded on the initiative and with the support of the Trent Catholic Bank, as we shall see below.

These Banks are not economic consortiums, because they are not based on the law No. 70 of April 9th., 1873, nor savings banks, as their object is not the collection of savings. They are, on the other hand, private societies.

stituted by shares and endeavour by means of the conduct of the business contemplated in their rules to facilitate and simplify the circulation of money and to promote and encourage the industry and commerce of the district. In order that they may attain this end, these banks are authorized to receive deposits of money in current account with or without use of the system of cheques or the system of bank books. The first deposit entered in a bank book (or on cash certificate) must be at least 100 crowns and the total amount deposited in the bank book system may not exceed thrice the paid up capital, in the case of the Trent Industrial and People's Bank, nor twice that paid up, in the case of the Commercial Bank of Trieste.

If the total amount of the deposits entered in the bank books exceeds two thirds of the above maximum, the surplus must be entirely invested in Government securities belonging to the Bank and engaged in its name. The Banks are authorized also to issue cheques of not less than 100 crowns to bearer and at interest; the total amount of the cheques in circulation may not exceed the amount of capital actually paid up on the Banks. They discount bills of exchange, cheques, invoices and other credits; they grant loans in current account; they grant loans and advances on mortgage of real and personal estate, they take part in the foundation and carrying on of industrial, commercial and other enterprises of public utility, they grant credits for the purpose, and taking or giving advances of shares in public works; they receive in deposit Government securities and other assets, sell Government securities redeemable in instalments; purchase, sell, lease or give real estate on lease, undertake or arrange public and private works, undertake constructions; receive concessions for railways and other transport business etc.

The Trent Industrial Bank is further authorized to issue bonds up to the amount of the mortgage loans granted on buildings intended for industrial or commercial purposes, in return for mortgages on the buildings and on the mortgaged capital, as well as the amount of the loans granted for the same objects, to societies, transport, commercial or industrial undertakings, secured on mortgage. The total amount of the bonds must never exceed five times the share capital actually paid up. As a special guarantee of the payment of the capital and interest on the bonds of the bank, issued in conformity with the above provisions, a special reserve fund for Bank bonds has been formed; by means of an initial payment of 100,000 crowns and a contribution out of the annual profits (5 % of the profits of the Bank after deducting the dividend to shareholders), until the fund amounts to 5 % of the total amount of the bonds in circulation.

Every shareholder participates in the property of the society in the proportion laid down in the rules and in the profits and losses in proportion to the number of his shares; the shareholder is liable for the engagements of the society only up to the amount of the shares he possesses. The administrative authorities of the society are the Board of Management and the General Meeting of Members. Besides these, there is a Council of Supervision or Committee of Inspection, which has a right to examine the books of the society at any moment and the annual balance sheet.

The profits of the Bank, represented by the net yield, after deduction of expenditure and losses are, partly assigned to the reserve fund (5 % in the case of the People's Bank and the Industrial Bank and $\frac{1}{2}$ % in that of the Commercial Bank); an amount, corresponding with 5 % (People's Bank), 4 $\frac{1}{2}$ % (Industrial Bank) and 4 % (Commercial Bank) of the share capital, represents the dividend to be assigned to the share holders, while a certain percentage is deducted for payment of the Board of Management; the ultimate balance is divided among the shareholders as an extra dividend.

The State controls the work of the Bank by means of a Government Commissioner.

At the end of 1912, the share capital of the People's Bank was represented by 1,000 shares of 200 crowns each, altogether 200,000 crowns, liable to be increased to 500,000 crs. The share capital of the Commercial Bank in 1912 amounted to 8,000,000 crowns, liable to be increased to 20,000,000 crs. That of the Industrial Bank, at the same date, amounted to 1,000,000 crowns in 5,000 shares of 200 crowns each.

With regard to the balance sheets of these institutes it is to be observed that the *Banca Commerciale Triestina* does not prepare special balance sheets for its branches in the Trent district; the results of the work of these are embodied in the balance sheet of the Trieste Bank, in which, however, they are not shown separately. The balance sheet of the *Banca Commerciale Triestina*, therefore, shows the work of the head bank of Trieste, including the branches in the Trent district, in Friuli, Istria and Dalmatia.

The Trent People's Bank closed its account on December 31st., 1911, with a credit of 1,403,737.38 crowns and a debit of 1,392,843.45 crs. and thus with a net profit of 10,892.93 crs. The funds of the Bank consisted in:

	CROWNS
Capital in 1,000 shares of 200 crs. each	200,000.00
General Reserve Fund	24,908.45
Special Reserve Fund	55,239.49
Total	280,147.94

The Balance Sheet of the Industrial Bank in its second working year (1909) showed credits of 9,381,474 crs. and debits of 9,307,550 crs. and therefore a total net profit of 73,924 crs. Three years later, at the end of 1912 showed 19,304,336.95 crowns as credits and 19,237,596.24 crs. as debits. The funds of the Bank on December 31st., 1912 were made up as follows:

	CROWNS
Share Capital (5,000 shares of 200 crs. each)	1,000,000
Reserve Fund { Ordinary	14,399
{ Against Depreciation of Securities	17,507
{ for Bonds	110,623
Total	1,142,522

The progress made by the Industrial Bank is seen by the amount of total business.

in 1908 the total business of the Bank amounted to	53,000,000
" 1909 " " " " " "	57,500,000
" 1910 " " " " " "	76,680,000
" 1911 " " " " " "	105,500,000
" 1912 " " " " " "	111,132,000

The *Banca Commerciale Triestina* was founded in 1857; the Trent Peo-
s Bank in 1867; the Trent Industrial Bank in 1908.

B. — Savings Banks.

The object of the Savings Banks of Trent and Rovereto is to give every, but above all the poorer classes of the people, an opportunity of saving their savings safely at interest in successive instalments. The Bank is under the patronage of the Commune in which it has its head quarters. The funds of the Bank consist of the deposits, the profits on the business of the reserve fund already formed. The profits on the business consist of the interest on the funds of the bank remaining after subtraction of the amounts due to the depositors as interest and after payment of all working expenses and the other debts of the Bank.

These profits are computed separately and placed to the reserve fund, which is formed precisely by the profits made by the Bank in previous years and the amounts placed to the fund.

The reserve fund is intended to guarantee the deposits, to meet losses and all the other engagements of the Bank. The fund must remain intact until it amounts to 5 % of the credit of the depositors, and as soon as this amount is reached or exceeded, half the surplus annual revenue must be employed for the further increase of the reserve fund until this amounts to 10 % of the credit of the depositors, while the other half may be used for purposes of public utility or benevolence in the commune.

When a part of the fund is used for this latter purpose, the proposal of the Managing Committee of the Bank to this effect must be approved by the Communal Council by a majority of two thirds of the votes of the present, and is always subject to the approval of the Government and judicial authorities.

When the Savings Bank is dissolved, all the reserve fund must be used for the above mentioned purposes.

Besides this reserve fund, the savings Bank is obliged to have another special reserve fund to meet depreciation in securities. This fund is formed of the profits derived from the increase in value of the securities held by the Bank, that is to say from profits not realised and therefore merely registered, after deduction of the losses on other Government securities held by it.

The Commune, as patron of the Bank, provides an additional guarantee for the engagements of the Bank, so that if the reserve fund is not sufficient, the Commune is obliged to make good any deficiency.

The money received by the Bank is invested in the following ways, in loans on mortgage preferably to be repaid in successive instalments, subventions or loans on Government securities clearly specified, loans to communes, districts and water consortiums legally constituted under the provincial law of August 28th., 1870 (Bulletin of Provincial Laws, No. 64), duly authorized to contract them and extinguish them by means of additional levies made within their jurisdiction with the permission of the authorities and, finally, with the approval of the competent authorities, to public institutes of general utility founded upon mutual principles; discount of bills, of maturity up to six months, provided with at least three signatures of persons recognised as solvent and qualified; discount of the bank's own pass books; purchase of Government revenue bonds and discount of coupons; loans or advances to credit institutions based on mutual principles or on the joint and several guarantee of all their members, provided this guarantee is also accepted by the creditors of such institutes in special cases, purchase of real estate; deposit in current account in specified banks, with the approval of the provincial political authorities; participation in the cheque and clearing business of the Imperial and Royal Postal Savings Bank and the clearing business of the Austro-Hungarian Bank; deposit of its own Government securities in specified credit institutions authorized for the purpose by the provincial political authorities with the object of obtaining money for its temporary needs.

The savings bank conducts its own business and provides for its own management by means of a Committee of Management and its clerks. The Committee is composed of ten members elected by the representatives of

TABLE IV. — *Work and Balance Sheet*

Years	Number of Books at the End of the Year		Deposited		Wish
	Trent	Rovereto	Trent	Rovereto	Trent
1855.	193	582	6,178.20	38,502.10	103
1870.	1,333	1,060	117,871 —	50,545 —	115,563
1880.	4,111	3,473	1,489,319.39	324,334.87	367,393
1890.	13,825	7,719	2,894,591.44	1,557,533.07	2,666,863
1900.	22,582	2,285	8,032,487.87	8,993,654.57	6,501,703
1910.	—	1,121	—	86,184.70	—
1912.	27,603	13,471	12,024,001.08	4,768,895.04	13,644,111
—	—	36	—	—	—

(1) Estimated in 1912 owing to the fall in value of Austrian Government Bonds. In 1905 the Fund had 385,000 crowns. The progressive depreciation of Austrian Government Bonds caused not only the loss

the citizens by an absolute majority of votes; their services are not remunerated. The members of the Committee appoint their President and Vice-President from among their own body by an absolute majority of votes and by ballot. For the period during which these officers hold office they cannot belong to the Municipal Executive Committee. The Savings bank is under the immediate supervision of the Commune and under the control of a Government officer, who appoints a Commission to supervise and watch over the course of business and the administration and see that the rules are exactly observed.

The Trent Savings Bank was founded in 1885; it began with 193 books and deposits of 6,178 florins and a reserve fund of 2,084 florins; in 1912 there were 27,603 books, the amounts deposited were about 12,000,000 crowns and 1,660,000 crs. had been withdrawn; the credits of the depositors amounted about 50,600,000 crs., the reserve fund was about 3,000,000 crs., the total amount administered was about 55,640,000 crs. (See Table IV, Work and Balance Sheets of the Trent and Rovereto Savings Banks). The profits for the year 1912 were 292,417.77 crs., of which 282,417.77 crs. were added to the reserve fund to meet depreciation of securities, to cover the loss of 823,727.15 crs., due to the decrease in the real value of Government securities as quoted on December 31st., 1912; this decrease represented 4.33 % of the nominal value of the securities held by the Bank.

As said in the note at the bottom of Table IV, the funds to cover depreciation of securities in the two banks had, between 1903 and 1905, become very considerable, but were at last altogether lost, together with the profits of the year, through the progressive fall in value of Austrian Government bonds. It is well also to mention that the loans on mortgage to incorporated bodies and private individuals made by the Trent Bank in the Year 1912 amounted to 33,270,000 crs.

Banks of Trent and Rovereto.

Credit at the Year	Fund to Meet Depreciation of Securities		Reserve Fund of the Bank		Total Funds Administered		
	Trent	Rovereto	Trent	Rovereto	Trent	Rovereto	
Rovereto							
213,503.60	—	—	20.84	5,543.30	6,220.23	119,046.90	Florins
227,591.65	—	—	31,744.25	25,226.15	330,535.41	252,817.80	"
1,208,769.90	—	27,562.82	185,197.27	94,346.83	2,353,190.59	1,230,479.55	"
5,400,841.23	—	90,380.21	811,638.80	268,283.82	13,340,363.98	5,759,506.26	"
3,281,554.67	43,678.97	84,367.42	2,250,830.12	298,958.35	40,919,452.85	15,664,880.44	Crowns
1,070,561.71	—	1,982.38	—	200,725.17	—	1,353,069.26	Gold Fl.
11,897,717.56	— (1)	— (1)	2,944,950.91	1,567,746.33	55,640,528.10	33,473,464.19	Crowns
63,328.02	—	—	—	—	—	63,328.02	Gold Fl.

Profits in the Trent Bank exceeded a million crowns, that in the Rovereto Bank in 1905 amounted to the profits for the year.

The funds devoted by the Trent Savings Bank to purposes of public utility and benevolence in accordance with its rules, from the date of its foundation up to 1912, amounted to 1,346,457 crowns.

The Rovereto Savings Bank began working in 1841 with 39 books and deposits amounting to 1,994 florins. In 1912, there were 13,405 books, about 5,790,000 crs. were deposited and 6,370,000 crs. withdrawn, besides 65,118 francs in gold; the credit to depositors amounted to 31,893,000 crowns, besides 63,328 francs in gold; the reserve fund amounted to 1,567,746 crs; the total amount administered was 33,472,464 crs., besides 63,328 francs in gold (See TABLE IV, Work and Balance Sheets of the Trent and Rovereto Savings Banks). The loans on mortgage amounted on December 31st., 1912 to 22,648,873 crowns; the funds devoted to purposes of benevolence and public utility up to the end of the year 1911 amounted to 689,134 crs.

The credit balance of the Rovereto Bank in 1912 was 137,712.07 crs, which was placed to the special fund to meet depreciation in securities; the loss in Government securities in 1912 was 500,001, crowns.

(To be continued).

BELGIUM.

THE THIRD CONGRESS OF FARMWOMEN'S CLUBS AT GHENT.

SOURCES:

ASSOCIATIONS DE FERMÈRES - LE RÔLE PROFESSIONNEL DE LA FERMÈRE - LA FERMÈRE MÈRE DE FAMILLE ET MÉNAGÈRE. (*Farmwomen's Clubs. — The Professional Role of the Farmwoman. — The Farmwoman as Mother and House-wife*). Reports presented at the 3rd. Congress of Farmwomen's Clubs at Ghent, 1913. Brussels, "National Committee of the Federations of Farmwomen's Clubs"; 1913.

PRINCIPAUX VŒUX ADOPTÉS PAR LE IIIÈME CONGRÈS DES CERCLES DE FERMÈRES: 12-15 JUIN 1913 (*Principal Resolutions approved at the 3rd. Congress of Farmwomen's Clubs: June 12th.-15th., 1913*) "Village Moderne", Brussels, Goemaere, 1913.

§ I. PROGRAMME OF THE CONGRESS.

We have already had occasion to deal with the organization and acts of the Farmwomen's Clubs in other numbers of this Bulletin (1). It started about ten years ago in Canada and the United States, they are soon widely established also in Europe, especially in Belgium, where they were recognised as among the most effectual means for educating the rural classes and arresting the depopulation of the country districts.

Belgium, with its large experience of the benefits of associations, understood that in order to facilitate their delicate mission for the peasant women, it was necessary to unite their efforts, to show the young women and the others the advantages of country life, to train them and give them professional instruction, to fit them to carry on the small industries in connection with the farm.

On this basis, the first farm women's clubs have arisen, in which the organization is simple and the contributions are small, provided with rich libraries of books on health, rural economy, etc. Lectures and lessons are given in them periodically, and shows and prize competitions etc. held.

(1) See numbers for May 31st., 1911, pages 43 et seqq., and October, 1913, page 399.

These characteristic associations, which have already given excellent results in Belgium, have, as we know, gradually spread over Austria, France, Germany, England, Ireland etc. (1).

The Congress presenting more than usual interest, on account of the intervention of the representatives of numerous foreign States, was divided into three sections, with the following programmes :

1st. *The Farmwomen's Associations.* Report of the work of the farm women's associations in the various countries. Organization, programmes, results. The various forms of association among farmwomen. Associations for the diffusion of instruction, associations for the defence of professional interests, co-operative societies for purchase and sale, mutual aid and insurance, savings banks and pension funds, associations for recreation. The various means of action of the farmwomen's associations : home school, lectures, libraries, shows etc. 2nd. *The farmwomen's professional mission.* The care of young cattle. The milk industry, farmyard animals. The kitchen garden, book-keeping. The embellishment of the farm with shrubs and flowers. 3rd. *The farmwoman as mother and housewife.* Training of the family. Health of infants. Advice with regard to sanitation and furnishing. Utilization and storage of kitchen garden produce. Means the farmwomen may try for the professional education of children and for attaching them to the country.

Every field in which women may exert an appreciable influence was therefore considered.

§ 2. THE MOST IMPORTANT RESOLUTIONS AND COMMUNICATIONS.

As it is not possible to report all the decisions arrived at in the meeting in regard to the various matters mentioned above, we shall limit ourselves to those of the greatest importance. And above all, in relation to the subject dealt with in the first division, the Congress passed resolutions to the effect that : (a) the farmwomen's associations must not limit themselves to training out good housewives, but must also be centres of social union; (b) in the training schools for young women, belonging to land owners' families who pass a portion of the year in the country, instruction in agriculture must be so organized as to permit of their devoting themselves with intelligence to social work connected with it ; (c) courses of domestic and rural economy must be instituted for the use of the founders of farm-women's clubs and the programme of the institutions in rural centres must be utilised for the preparation of competent managers of these clubs.

In regard to the problems of the second division, relating to the farm women's professional mission, all the resolutions passed substantially consisted in including in the school courses instruction in agricultural bookkeeping.

(1) With reference to their origin and organization, see also the very recent publication O. BUSSARD : *Les Cercles de fermières*. Le Musée Social. November, 1913, Paris.

edning, kitchen gardening etc. It is especially desired that the public educational department should make the needful provisions for ensuring that practical ideas on the best method of preserving milk, the use of which is continually extending and acquiring greater importance, should be imparted in country schools, and that contracts for sale of milk should be based on its state of preservation and the quantity of fatty substance in it.

It would be desirable also that bookkeeping should be carefully taught in all institutes of agricultural domestic economy, that its first elements should be imparted in the elementary schools and that many lessons in it should be given for housewives, if possible on the initiative of the clubs, which should tribute large numbers of model registers and should organize competitions among members, with prizes for those who have kept the books of their farm best.

Finally, important resolutions were passed in relation to family training, rural exodus etc., which were dealt with in the third division of the Congress. In connection with the first point, the farmwomen's clubs were urged frequently to study in their meetings questions of household training, morality or health; as well as to encourage the reading of instructive magazines and the foundation of boarding schools exclusively for farmer's daughters.

With regard to the depopulation of the country districts, the necessity was recognised that the mothers should understand the dignity of the agricultural calling and inculcate on their children from their infancy a respect for the name and occupation of a farmer, and that they themselves should be above all convinced that country life is preferable, especially from the point of view of health and morals, to that of the city, notwithstanding the more attractive appearance of the latter, and, in addition, that, even before they are old enough for school, the mothers should initiate their children in manual labour, in the care of young cattle and of garden produce, instilling in them in their early years the spirit of order and economy; and, later during their school years, in their spare time, interest them in the farm work, the furnishing of the house and the farm, in literature dealing with agriculture etc.

Finally, the Congress judged it desirable, always with the object of finding means for directly or indirectly combating the rural exodus; 1st. that the attention of the farmwomen be often drawn to subjects connected with education;

2nd. that the farmwomen's clubs organize family festivals, evening entertainments, and meetings for purposes of recreation;

3rd. that a list of publications be drawn up suited to promote devotion to the land, the family and religion, and that they be recommended and read at the disposal of the inhabitants of the country districts;

4th. that the manner of organising *mutual and co-operative societies* among members of the farmwomen's clubs be studied.

These are the resolutions passed at the important assembly which has shown the beneficial effects of such institutions, proving once more that solidarity and union are the only forces that can transform this class of

workers, until lately overlooked, into one of the most effectual and fruitful elements of social life.

Some interesting communications were also made to the Congress. Let us mention that of M. Tibbaut on rural exodus, in which the eminent author, after observing that the country exercises an influence of the first importance for the existence of nations, being a vast reserve of human energy, physical and moral, shows the urgent need of promoting the constitution of numerous agricultural families, encouraging the erection of rural dwellings and organizing credit, so needful for the proper working of a farm. We must also add M. Tibbaut, hasten agricultural progress, by a more careful study of the qualities and needs of the soil, by a greater specialization of crops and the formation of a larger number of small holdings.

M. Pien, Chief of Division at the Department of Agriculture and Public Works, presented a communication on the legal and economic nature of the Belgian professional unions and co-operative and mutual societies.

2. PUBLICATIONS OF RECENT DATE RELATING TO CO-OPERATION AND ASSOCIATION IN BELGIUM

(a) OFFICIAL PUBLICATIONS:

EXPOSÉ STATISTIQUE DE LA SITUATION DES ASSOCIATIONS D'INTÉRÊT AGRICOLE PENDANT L'ANNÉE 1911 (*Statistics showing the Situation of the Associations of Agricultural Interest in 1911*). Department of Agriculture and Public Works. Management of Agriculture. Brussels, Odry. Mommsen, 1913.

DE MOFFARTS (Paul): Note sur les syndicats voyers ou associations de propriétaires en vue de l'établissement de l'entretien des chemins agricoles (*Note on the Road Syndicates: Associations of Landlords for the Establishment and Maintenance of Agricultural Roads*). In "Rapports et Communications," No. 6, published by the Department of Agriculture and Public Works, Rural Office. Brussels. M. Weissenbruch, 1913.

FRATEUR (J. L.): Note sur les sociétés de défrichement à l'étranger et la création d'un organisme semblable en Belgique (*Note on Foreign Clearing Societies and the Foundation of Similar Organization in Belgium*). In "Rapports et Communications," No. 6, published by the Department of Agriculture and Public Works. Rural Office. Brussels. M. Weissenbruch, 1913.

TIBBAUT (Em.): Société faisant l'entreprise de défrichements (*Society engaged in the Work Clearing*). In "Rapports et Communications," No. 6, published by the Department of Agriculture and Public Works, Rural Office. Brussels, M. Weissenbruch, 1913.

(b) OTHER PUBLICATIONS:

BERTOT (Arthur): Les assemblées générales et la nouvelle loi sur les Sociétés (*General Meetings and the New Law on Societies*). January 1st, 1914. No. 87. Brussels.

MAENEAUT (M.): Rapport sur les travaux de la Société Royale Centrale d'Agriculture et d'Économie pendant l'année 1912-1913 (*Report on the Work of the Belgian Central Society of Agriculture for the Year 1912-1913*). "Journal de la Société centrale d'Agriculture de Belgique," November, 1913. No. 11. Brussels.

EGYPT.

BEGINNINGS OF THE CO-OPERATIVE MOVEMENT IN AGRICULTURE.

OFFICIAL SOURCE:

ANNUAIRE STATISTIQUE DE L'EGYPTE (*Egyptian Statistical Yearbook*) Finance Department; Statistical Division, Cairo, 1912.

OTHER SOURCES:

ET (J.): L'Egypte et l'Association Agricole (*Egypt and Agricultural Association*). Published in "*Le Musée Social*", no. 12. October, 1913. Paris.

HEL (B.): Les syndicats coopératives agricoles en Egypte (*Agricultural Co-operative Syndicates in Egypt*) from "*L'Egypte contemporaine*" no. 15. May, 1913, Cairo.

§ I. INTRODUCTION.

Egypt, as we know, is an eminently agricultural country. Indeed, it may be said that most of its riches consists in agricultural produce especially cotton. The Egyptian cotton plantations alone now cover an area of 40,415 feddans (1). Besides this, Egypt is also very rich in grain, es, palms etc.

Agricultural labourers are abundant and cheap. The farms are divided in a sufficiently sound system, very equally, without too great disproportion. In this connection, we reproduce a few figures furnished by Ribet in his valuable work on Egypt.

Distribution of Farms in Egypt.

Average Area of Holding	Number of Land Holders		Area	
	Total	%	Total	%
less than 5 Feddans.	1,247,080	89.5	1,369,612	25.0
from 5 and 10 "	76,139	5.5	530,231	9.7
10 " 20 "	37,707	2.7	507,050	9.2
20 " 30 "	11,233	0.8	274,439	5.0
30 " 50 "	8,390	0.6	323,883	5.7
more than 50 "	12,414	0.9	2,458,574	45.4
Total	1,392,963	100.0	5,463,789	100.0

(1) 1 feddan = 0.42 ha.

Egypt is therefore a country of small holdings, eminently developed. Indeed, small holdings are markedly characteristic of the Egyptian agricultural system. Under these conditions not only should the position of the Egyptian peasant, the *jellah* be highly satisfactory, but Egypt should have followed with especial readiness the advance movement that has been seen in every country, and that, while, on the one hand, it tends to improve agricultural produce, also tends to provide for the security and real material welfare of the peasant. If something has been done in Egypt, it is only the first step towards an action that must hereafter be continued with great intensity. The Egyptian Government has already begun the work of agricultural legislation and is likely to continue it actively: this is witnessed to by the formation of the Khedivial Society of Agriculture, founded in 1898, on the initiative of Prince Hussein; the promulgation of the very important law of March 1st., 1913, declaring undistainable those farms of an area of which is less than 5 feddans, with which we have already dealt in this Bulletin more than once (1); not to mention the co-operative movement initiated by Omar Lufty Bey and continued in Ribet's new scheme for the constitution of agricultural co-operative societies in Egypt, of which we intend now to speak. But, before entering on the subject, we think it well to say a little more with regard to the present position of the Egyptian *jellah* in order that the reader may understand the difficulties that the Government and the authorities have met with in their efforts for the economic and social improvement of the rural classes.

M. Ribet writes "The *jellah* is sober, tough and hard working, but thriftless and fatalistic, and, thus not easily accessible to the idea of sacrifices to be made today for a benefit to be reaped tomorrow. Besides, he is uninstructed and the victim of the most odious usury. Of 1,000 *jellaheen* (men) hardly 85 can read and write. I do not speak of the women, of whom only 3 % can read and write. In every village there is a Greek druggist, a person as extraordinary as he is harmful, called "bikal" who sets himself, by means of a clever system of usurious loans, to obtain possession of the *jellaheen's* farms and their profits. The famous law regarding farms of less than 5 feddans undistainable, which excited so much attention in Egypt, was principally intended to liberate the peasants from the yoke of the "bikal". But, besides the ignorance of the peasants and the intolerable advantages taken of them, other causes united to make the necessity of agricultural association felt profoundly, just as in other countries, only perhaps more here. And amongst these we should mention the cotton crisis of 1911, the serious injury done to the cotton crop by parasites and the continuous increase in recent years in the number of farms expropriated, to which the 5 feddans law will now put a certain limit. If all these evils there could only be one efficacious remedy: that remedy which has not failed of beneficial results in all countries which have suffered from

(1) Cfr. *Bulletin of Economic and Social Intelligence*. Year III, No. 9, September, 1912, p. 157 and Year IV, No. 7, July, 1913, page 93.

agricultural crises: namely the association of the farmers and their co-operation in the struggle against their common enemies.

Let us now see how the co-operative movement in agriculture in Egypt is developed and what is its present position.

§ 2. THE BEGINNINGS OF THE CO-OPERATIVE MOVEMENT.

Let us say at once: the co-operative movement in Egyptian Agriculture is still in the embryonic stage; its development, by no means easy, given the mental conditions and the general situation of the peasant farmers considered, has not yet received the highly important sanction of Government, without which it must remain permanently paralysed, but which we believe will be given before long.

The Egyptian co-operative movement is closely connected with the work of Omar Lufty Bey. He may be reasonably considered the father of co-operation in Egypt. In 1908, Prince Hussein had instituted a Commission to act on behalf of the Khedivial Society of Agriculture and study all laws and regulations for agricultural co-operation in Egypt. Of this Commission, Lufty Bey was a member and he was to found at Cairo, two years later, the first Egyptian co-operative credit society for small traders. Though this was not a co-operative society exclusively agricultural in character (1), we think it well to give a brief account of it and the results as attained, so that the reader may have some idea of the general conditions under which co-operation as a rule will have to live and thrive in Egypt. We glean our facts from M. Ribet's interesting work above referred to.

The credit co-operative society, founded at Cairo by Lufty Bey, was founded under the form it was compelled to take of an Egyptian limited liability society authorized by the Khedive. In order to preserve the co-operative principle unchanged, it was authorized to introduce the following provisions into its rules: 1st. The shares are personal and only transferable with the consent of the Board of Management; 2nd. Loans are only granted to members, except when there are available funds in excess of the requirements of the members themselves.

The society has a capital of 175,000 frs., fully paid up. The shares are 100 frs. each. The expenses in connection with the foundation of the society came to 1,500 frs. During 1911, it granted loans for a total amount of 225,000 frs., at 7 ½ %. The loans were granted for six months and the amount varied generally from 250 to 1,000 frs. The society discounts its loans at 5 % at the Deutsche Bank. It is only exceptionally that the loans are renewed and always on condition of repayment in instalments of 1/3 of

(1) This co-operative society, in its first working year, granted special loans to certain agricultural associations. Such loans, as we shall see hereafter, are now granted by the National Bank.

the entire loan. There are 250 members in the society. There is a discount committee working both independently and through the discount committee of the Deutsche Bank. Loans are only granted on signature of a surety.

This then was the form of the first co-operative credit society founded by Lufty Bey. The form of a limited liability society is certainly not the most suitable for co-operative societies generally, and especially not in agricultural co-operative societies: but it is obligatory until the Egyptian Civil Code is suitably amended.

The proposals made by Omar Lufty in this sense were not adopted. Still he did not abandon the idea and founded a certain number of agricultural associations under the form of civil societies. During the last three years the co-operative movement initiated by him has been gradually making progress, slowly, it is true, but sufficiently surely. All the associations have prospered, some more some less, and some have acquired local importance which augurs excellently for the future.

§ 3. AGRICULTURAL ASSOCIATIONS AT PRESENT EXISTING.

Let us now give a short account of the agricultural associations at present existing in Egypt, their constitution and their working. Of these associations the most important are those of Shubrah-el-Namlah, Kom-el-Nahia, and Nahiah, of which we shall speak more in detail.

Association of Shubrah-el-Namlah.

This is the oldest of the associations now working in Egypt and was founded on January 21st., 1910. It had at first 97 members, the number which had increased by December 31st., 1912 to 241. The share capital, first 8,634 frs., amounted at the end of the year to 13,502 frs. It is made up of contributions on shares of 200 millièmes each (5.124 frs.); the reserve fund increased in the three years 1910-1912 from 922 frs. to 2,972 frs. But the share capital alone would not suffice to enable the association to meet the fairly considerable demands for the satisfaction of which it was founded: it therefore has had to have recourse to loans. These loans which it now obtains from the National Bank and during its first working year it obtained from the Credit Co-operative Society mentioned above amount as a rule to 1,000 Egyptian Pounds (25,620 frs.) a year and are repaid in full with 6 % interest after the harvest.

The principal business of the association may be briefly summarised as follows: purchase of seeds, manure and coal; sale of these articles again to members at 3 % above purchase price with 7 % interest in case of credit payments; loans to members.

We shall here give a short summary of this business for the year 1912:

Purchase of Beans for Sowing	Frs.	34,408	
" " Cotton Seeds	"	8,557	
" " Chemical Manure.	"	12,708	
" " Coal	"	4,586	
miscellaneous Purchases	"	8,352	
Total Purchases	Frs.	68,611	
Loans to Members	"	43,913	43,913
Total of Business Operations	Frs.	112,524	

These figures call for some remarks.

First of all it is to be observed that the association is able to purchase at lower prices than the *fellaheen* can individually, so that purchase in it is always a gain to the members, in spite of the profit of 3 % and the 7 % interest in case of credit payments. It is also to be observed that this interest, which might appear to some a little too high, especially in the case of an association of benevolent character not seeking profits but having eminently social aims, is indeed very low when the general situation of the money market in Egypt is considered, and appears lower still when contrasted with the intolerable amounts exacted from the peasants in places where there are not as yet any of these co-operative associations and where the *fellaah* is obliged to pay the usurious demands of the "bakal".

We must, however observe that the net profits for the three years, 1910, 1911 and 1912 were respectively 2,844 frs., 3,382 frs. and 13,407 frs. These profits were divided into three equal portions: one third was placed to the reserve fund, one third distributed among the purchasers, under the form of coupons exchangeable for purchases, in proportion to the amount of the purchases; one third, finally, is distributed among members under the form of dividends. Small contributions are also paid into the Fund for Assistance to the Poor, and the Fund for Co-operation Propaganda and Agricultural Education.

Association of Kom-el-Nur.

This association is perhaps the most important of those now existing in Egypt. At the end of 1905, it had 307 members with a share capital of 70 frs., or more than three times that of the Shubrah-el-Namlah association. As regards the amount of business done, the Kom-el-Nur association also surpasses the other; while in 1912, as we have seen, the business done by the Shubrah association amounted to 112,524 frs., in the case of the Kom association, the figure was 173,473 frs. The profits were 17,345 frs., 10 % of the total business done and the reserve fund on January 1st., 1913 amounted to 9,182 frs. It is, however, to be noted that the amount of the loans obtained from the National Bank in 1912, amounting to 1,000 Egyptian pounds, was precisely double that of the Kom association (51,240 frs.). As regards its business operations, there is no substantial difference between them and those of the Shubrah association.

Association of Nahiah.

This was founded in June, 1910. It is among the most important, in point of number of members (307 at the end of 1912, the same amount as in the Kom-el-Nur association); but the business it does is rather small (71,736 frs. in the year 1912, against 173,473 frs. in the case of the Kom-el-Nur association). It, however, deserves special notice on account of some details of its management by which it is distinguished from the other associations.

The Nahiah association, like the others, buys goods and sells them again to members for cash or on credit. When it gives credit it also charges interest, which slightly increases the prices. This increase is so arranged that the members buying on credit from the association pay the same amount as they would have to if they purchased directly on the market for cash. This is, of course, no slight gain for the purchaser.

The loans are granted at 9 % (not at 7 % as in the Shubrah association): this rate is still very low in comparison with the 30 % the fellah was, hitherto, accustomed to pay. It is well also to note that the association does not ask for a mortgage, nor actual security, but is satisfied with the signature of a guarantor.

The profits, which in the year 1912, amounted to 4,740 frs., were divided as follows: 50 % placed to the reserve fund; 20 % distributed as coupons exchangeable for purchase; 20 % as dividends to members; 10 % to the Poor Fund, and the Fund for Co-operation Propaganda.

We shall close these brief notes on the agricultural association now existing in Egypt with a few figures reproduced from the interesting work of M. Michel.

Figures showing the work of the Agricultural Associations now Existing in Egypt (in Egyptian Pounds) (1).

Name of the Association	Number of Members	Share Capital January 1st, 1913	Working Year 1912			
			Total Business Done	Loans Contracted	Reserve Fund	Net Profit
Shubrah-el-Namlah	241	527	4,397	1,000	76	131
Kom-el-Nur	307	1,857	6,771	2,000	383	671
Nahiah	307	784	2,800	2,000	98	136
Auleila	202	286	1,535	759	47	111
Santimay	106	202	5,981	500	58	110
Nechil	117	920	2,875	1,750	67	119
Mechelet Diay	142	322	?	1,005	17	9
Naamul	124	186	933	800	20	6
Total . . .	1,546	5,084	25,352	9,814	714	1,516

(1) An Egyptian Pound = 25.62 frs.

M. Michel rightly remarks that what is most observable in this table is the high percentage of the reserve fund. "Although," he writes, "several of these syndicates are not more than a year old and all began work with a sufficiently large amount of capital, the total amount of the reserve funds is 17 % of the total amount of the capital. This is a result that any European co-operative societies might envy. It is due partly to the comparatively large profits made; in 1912 the profits amounted to 6 % of the total business done and 30 % of the capital. The rudimentary condition of trade in the villages and the high cost of money allow of the syndicates making large profits, while still rendering considerable services to their members. The competition of the co-operative societies against each other and private traders would make it impossible, in most European countries to sell seed at a profit of from 10 to 20 %, as at Nahiah, or to do so at 9 %."

This then is the general situation of the Egyptian agricultural associations and the environment in which they must develop and work. If the agricultural co-operative movement in Egypt stopped with the above mentioned associations, which are rather syndicates than real and true co-operative societies, it would present very little interest. But the movement now giving signs of greater vigour and with this new phase of activity is our intention briefly to deal in the following paragraph.

§ 4. NEW TENDENCIES OF AGRICULTURAL CO-OPERATION.

The first attempt made by Prince Hussein in 1908, if indeed it did not quite attain the end the Commission and the Khedivial Society had in view, that is to say the passing of special laws for the co-operative societies, still succeeded in giving birth to these first associations of which we have just spoken, which form a nucleus round which the movement will develop. In view of the excellent financial and social results attained by the associations already existing, Prince Hussein thought in 1912 of pressing forward to the complete realisation of his ideals. For this purpose, M. Met, an officer of the French Agricultural Department, and quite a specialist in the matter of agricultural co-operation, was invited by the Khedivial Society of Agriculture to come to Egypt to give courses of lectures there and prepare a complete scheme for the organization of agricultural association. The scheme consisted of four parts: organization for purposes of the association, finance, and administration and organization for extension and propaganda. Although his proposals have not yet been accepted by the Egyptian Government, we think it well to summarize them briefly, since, whatever the final form the agricultural co-operation the Government sanctions may take in Egypt, it cannot differ widely from the general lines laid down by Met in his proposals.

Let us give the principal heads of the bill drafted and the proposed rules.

(A) *Bill for Agricultural Co-operative Societies in Egypt.*

1. *General Provisions.* — The agricultural co-operative societies shall be associations of an unlimited number of farmers of a single district or a single region (or part thereof) for the defence of the interests and the increase of the profits of members only, by means of business carried on in common.

2. *Legislation and Civil Personality.* — The societies shall be regulated in accordance with their rules, the present law and the Civil Code.

In every case the Commercial Code shall be applicable to them and its procedure shall be followed. They shall have civil personality and may therefore receive without impediment free grants from living persons or testamentary bequests under the form of *waqf* (1) property or any other form.

Members' Liability. They may be formed as unlimited liability societies or as societies in which the liability is limited by shares or to a fixed amount.

Members, Rules, Management. The provisions made in relation to these three subjects do not substantially differ from those in force in similar societies in other countries.

Members' Shares. If the capital is divided into shares no share may be less than 20 P. T. (5.12 frs) or more than 500 P. T. (128 frs). No one may have an interest of more than 400 Egyptian pounds (10,248 frs.) in a single co-operative society, nor possess shares the nominal value of which exceed this amount. The shares shall always be personal. They may only be transferred with the consent of the Board of Management or of the General Meeting.

The capital may vary with the number of members. It may, however, never be less than the amount subscribed at the foundation of the society.

Reserve Fund. The reserve fund shall be unlimited and be derived from the following sources:

- 1st. Entrance fees;
- 2nd. Difference between the nominal value and the rate of issue of new shares, in case of their being new shares issued after the formation of the society;
- 3rd. Three fourths at least of the net annual profits until the reserve fund amounts to two thirds of the share capital;
- 4th. Profits not claimed by members or that they have lost by prescription.

In unlimited liability credit co-operative societies without capital all the profits shall be paid into the reserve fund to form a guarantee fund. The rules, however, may provide that 10 % of the profits be set aside for works of public utility.

(1) The *waqf*, as we know, are the real estate belonging to Mohammedan religious communities.

In societies in which the liability is limited by shares or fixed at a certain amount, when the reserve fund amounts to $\frac{2}{3}$ of the share capital, surplus profits shall be divided among the members; in no case, however, shall this dividend exceed 5 % of the nominal value of the share.

B) Proposed General Regulations for Agricultural Co-operative Societies.

We pass over those portions of the rules that offer no special interest corresponding almost exactly with those in force in the majority of existing co-operative institutions. Some of the regulations, however, deserve mention: those, for example, relating to the members and the business of societies. As regards the members, the following rules are proposed. In order to be a member of a co-operative society, it is necessary

- 1st., to be of age;
- 2nd., to have one's habitual residence in the district mentioned in the act of foundation of the institute;
- 3rd., to be a land holder or farmer or occupied in work connected with agriculture;
- 4th., not to be already registered as member of a similar association in which the liability of members is unlimited;
- 5th., not to have been declared bankrupt or interdicted;
- 6th., to have the approval of the Board of Management.

The member must submit to the decisions of the board of management; he may, however, in case of opposition, have recourse to the Committee of Supervision, with which the ultimate decision rests.

In regard to business operations it must first of all be observed that the co-operative societies contemplated are defined in the bill as agricultural societies the object of which is to obtain for the farmers of small and medium sized farms the money they require for their work, as cheaply as possible.

The co-operative societies may conduct the following operations:

- 1st., Grant short loans exclusively to members for periods that must generally exceed one year. They may, however, in exceptional cases, grant loans for up to five years.

The loans must always be justified by utility and the exclusively agricultural character of the work for which they are obtained. No loan may be granted on the mere signature of the borrower.

- 2nd., Discount bills passed exclusively by members for purposes of work and farm necessities;
- 3rd., Get bills rediscounted, after signature of them, at a central co-operative society or a credit institute;
- 4th., Undertake collections or payments in behalf of members;
- 5th., Receive deposits from members and open current accounts for them, at interest or not;

6th., Borrow for own account for terms of not more than five years and at a rate never to exceed the legal rate ;

7th., Invest funds temporarily uninvested.

As we see, these societies act as real credit institutes for members, and conduct the principal operations of such institutes. But co-operative societies in M. Ribet's scheme are not exclusively credit societies ; they may at the same time act as co-operative societies for purchase and sale. They therefore may :

1st., Organize the collective purchase of manures, agricultural implements, livestock, seeds and all raw and manufactured material required in agriculture and all articles for food or domestic use, whether acting as intermediaries for a group of members who desire to make purchase or purchasing for the account of the association itself.

2nd., Obtain all agricultural implements and livestock required for farmwork etc., with the object of leasing them to the members of the association for their exclusive use ;

3rd., Encourage and organize the sale of their members' crops ;

4th., Build and lease storehouses (*chuana*), hulling rooms, storage rooms etc., for the exclusive use of members.

The co-operative societies may also afterwards plan, organize and support institutes of economic character, such as mutual societies of insurance against agricultural risks, societies for mutual aid in sickness etc., as well as found agricultural workshops in connection with the fight against plant diseases and especially against the cotton worm, promote and encourage the use of manure, agricultural implements etc; give lectures on agricultural subjects etc. etc.

CONCLUSION.

In the short space of this article we have therefore rapidly indicated the present situation of the Egyptian *jellah*, the various attempts made to promote a co-operative movement in Egyptian agriculture, the results far attained and the proposals for the future.

If a positive judgment may be pronounced in so delicate a matter we should say that Egypt presents an excellent field for the development of agricultural co-operation, especially when the matter is considered from the point of view of the enormous advantages the Egyptian peasant might obtain from a widespread movement of association. There are, however, some who object, and perhaps they are not wrong, that the *jellah* has not yet reached that degree of social evolution necessary for the co-operative principle to be applied well and safely. This is also, for the moment, the opinion of the Egyptian Government, which, while it is granting the *jellah* a good

tem of savings banks, undistrainable "homesteads", and a considerable amount of land for improvement, does not yet think fit to urge the peasant, *abrupto*, on the road to syndicalism and mutuality. Certainly, every operation, above all if radical, requires long preparation, at the risk of failing, and obtaining results contrary to those looked for. We cannot, however, deny that Egypt, through the action especially of Prince Hussein and the Khedivial Society of Agriculture, is being more and more prepared for the proposed end, so that the day cannot be far off when the ideals of the Justly Bey, now embodied in M. Ribet's proposals, will definitely come to be realised.

Part. II: Insurance and Thrift

HOLLAND.

INSURANCE OF AGRICULTURAL LABOURERS BY THE "LANDBOUW-ONDERLINGE".

SOURCES:

CENTRALE LANDBOUW-ONDERLINGE. Nederlandsche Landbouw-Vereeniging tot het onderling dragen van het Bedrijfs-Risico. Verslag, Balans, Rekening en Verantwoording (*Agricultural Central Mutual Society, Dutch Farmers' Association for the Distribution of Professional Risks, Report and Balance Sheet*). Years 1910, 1911 and 1912.
EISEN (S.): Landbouw - Ongefallen - Verzekering in Nederland (*Agricultural Accident Insurance in Holland*). In the Review "Cultura", July, 1911, pages 327-347.

§ I. LAWS IN FORCE.

Insurance of agricultural labourers against accidents is not yet compulsory in Holland. The law of 1901 on accident insurance compelled by the industrial employers to insure their workmen against accidents in their work either with the National Insurance Bank or under certain conditions, with mutual or private institutions. It was thought it would be best to provide separately for agriculture, in consideration of the special conditions it presents. For this purpose, the Government prepared a special law, which it presented in 1905, but which has not yet been approved for various reasons, the chief being that in the meantime the necessity was recognised of amending the law on accident insurance of industrial workmen. The position of agricultural labourers, has, however been considerably improved by the provisions inserted in the labour contract by which, in 1907, the Civil Code of Holland was amended and completed.

At first, they might claim compensation for material losses suffered by them through accidents in their work only in accordance with art.

icles 1,401-1,407 of the Civil Code, in which the general principle is laid down that every person is liable for loss suffered by others through his fault, negligence or imprudence, or through persons and things for which he is responsible. But, as effective proof of such responsibility is very difficult to obtain, the labourers, on whom, according to these provisions, the burden of the proof fell, but seldom succeeded in making good their claim to compensation. In very many cases, which rightly or wrongly were considered purely accidental, the labourers alone suffered, unless the masters thought of giving them assistance for a longer or shorter time. And thus many labourers, victims of accidents, could only be saved from economic ruin by private or public charity.

The provisions with regard to the labour contract issued in 1907 gave special sanction to three principles of great importance for agricultural labourers.

By article 1,638-c of the Civil Code the master is obliged to continue payment of wages, for a comparatively short period, to the labourer incapacitated for work through sickness or accident, always provided that the sickness or accident cannot be proved to be due to a voluntary action of the labourer, to his imprudence or to infirmity he has kept concealed.

Article 1,638-x obliges the master to provide that the workrooms, the furniture and the implements used in the business are and are kept in such a condition that the labourer may be "protected from any danger to his life, morals or property, as far as is compatible with justice and with the nature of the work." Whoever fails in this duty is bound to compensate the labourer in full for any loss, unless serious culpability can be proved against him, or in case of unavoidable accidents. In case of mortal accidents, the consort, children and parents of the victim have a claim to compensation if dependent on his labour.

In terms of article 1,638-y, the master is bound, in case of sickness or of accident to his servants living with him, to make provision for the necessary medical attendance and treatment for six weeks, unless this has already been provided for in some other way. The labourer may be called on to repay the amount expended in the fifth and sixth weeks, but that for the first four weeks must be paid by the master, unless the sickness or accident is to be ascribed to intentional act on the part of the labourer, his imprudence or an infirmity he has kept concealed.

Thus, since 1907, the duty of the farmers to provide for their workmen in cases of sickness or accident is considerably greater. Yet the need of insuring agricultural labourers against accidents still exists: the above provisions give them a right to compensation from their employers only when the accident is due to the defective equipment of the farm. In a case of purely fortuitous accident, can they claim compensation any more than before. If the farmers were to be made liable in the case of all accidents, without a distribution of risks among a number of them, most of them would have to meet liabilities far beyond their resources. So, in any case, the passing of a law on agricultural accident insurance is only a question of time.

§ 2. FOUNDATION OF "LANDEBOUW- ONDERLINGE."

Preparatory Action. — Without waiting, however, for legislation, Dutch farmers, have already on their own account, founded an accident insurance society for the benefit of their labourers, and in a few years it has made very brilliant progress and is constantly extending its field.

The law of 1901 on accidents had for the first time drawn the attention of the farmers to the question whether an agricultural accident insurance society would be desirable and what form would be best adapted to special needs and conditions of agriculture. Later on, since 1904, most all the large agricultural and viticultural associations have expressed their opinion on the matter, in their discussions and resolutions. A year before the publication of the 1905 bill, the Dutch Agricultural Committee (*Nederlandsch Landbouw-Comité*) pronounced itself in favour of the introduction of compulsory agricultural accident insurance, and in 1908 the same committee decided to invite the Government to present a new bill; at the same time it expressed its desire that the law should limit itself to making insurance compulsory, leaving the farmers free except as regards necessary precautions to be taken, in respect to the manner in which insurance should be arranged. After this great organization of agricultural societies, in 1906, also the Dutch Peasants' League (*Nederlandsche Venbond*) pronounced in favour of accident insurance and in 1907 a collective address was presented to the Chamber by various rural associations.

Yet, convinced that they would have no success in influencing the Government, while they limited themselves to a statement of principle, that it was necessary to approach it with definite and well thought proposals, so as to solve the problem in a manner answering to the conditions of agricultural industry, a group of important agricultural societies, and amongst them peasants' unions founded, on June 8th., 1907, a permanent committee to study the question of agricultural accident insurance on mutual principles. This committee came to the conclusion that it would be best for the farmers directly to undertake the charge of the business in question, while they had still the time, with all possible energy. On November 3rd., 1908, the permanent committee decided to start a voluntary accident insurance society on mutual principles.

For a moment, a union with the horticulturists was contemplated, as amongst them a similar movement had manifested itself and has made progress. But, on more mature consideration, it was decided to work separately. Because, as is natural, it was desired to found the new agricultural organizations on the basis of those already existing: and agriculture in Holland as a rule is organized by provinces, while horticulture, in view of its special conditions, has an organization rather of local character. Besides, a joint organization did not seem advisable in view of the difference of risks in horticulture and agriculture. So they have each founded their separate organizations, although on the same principles.

The horticultural organization was first founded. On March 25th., 1909 the meeting of the Dutch Horticultural Council (*Tuinbouw-Raad*) instituted the Horticultural Co-operative Society (*Tuinbouw-Onderlinge*), which began work on July 1st., 1909.

The agricultural organization, in view of the larger area to which it was to extend, required a somewhat longer period of preparation.

Only on July 1st., 1909, at a large meeting held at Utrecht, attended by delegates from the societies and unions belonging to the Permanent Committee and numbers of interested persons, was it decided to found Central Mutual Agricultural Society (*Centrale Landbouw-Onderlinge*) for agricultural accident insurance. The following months were employed in forming the provincial and local organization and explaining the purpose of the society in the different regions of the country; after that the society could begin work on January 1st., 1910.

Organization — The insurance society was organized on the principle of decentralisation. The provincial associations (*Provinciale Landbouw-Onderlinge*), of which the farmers are members, act as real and true insurance agencies. Only one undertaking of very large size (*Nederlandsche Heelmaatschappij*) is directly affiliated to the Central Society. In case of small accidents, such as have not caused disablement for a period of more than twelve months, the risk is exclusively borne by these organizations. They are autonomous, have their own rules that of course must all be uniform in essential points, and separate Boards of Management, composed of a president, a secretary and a varying number of members. In most societies one of the members of the board is appointed by the provincial agricultural society taking part in the foundation of the particular society.

The provincial associations are then divided into *Afdeelingen* (divisions), managed by a local commission elected by the members (*Plaatselijke-Onderlinge-Commissie*) (1). These Commissions are the intermediaries between the provincial insurance organizations and the individual member. They have not only to manage the local business of the association but also represent it with its members. This office, which they had not at the beginning, was gradually imposed on them by force of circumstances and was sanctioned at the meeting of the members of the central co-operative society, held on December 19th., 1912, and inserted in the rules. The same meeting also decided that at the plenary meetings of the provincial associations, which any member may attend, the vote must be taken no longer per head, but per *afdeeling*. Before every plenary meeting the members of each *afdeeling* must agree in regard to the subjects placed on the agenda and appoint a delegate to vote at the meeting.

(1) This division of all the provincial institutions into *Afdeelingen* was only recently made as a result of the decision of the plenary meeting of members of the Central Mutual Society held on December 19th., 1912. Previously, there were only two provinces thus divided, Friesland and Guelders. In the other provinces the local conduct of affairs was entrusted to *Plaatselijke Commissies*, the members of which were appointed by the Central Society (*College van Commissarissen*), according to the desires of the persons locally interested.

conformity with the mandate given him. The number of votes of each *afdeeling* is calculated upon the amount of wages its members pay in a year. *Afdeeling* has one vote for every 25,000 florins so paid, but no *afdeeling* more than three (not more than five in Zealand).

The local commissions form the basis on which the whole insurance organization rests. Their principal duty is to investigate every case of accident, its importance and its causes, and to see that the victim receives medical attendance and treatment and the compensation due to him for loss of his wages according to the conditions of insurance. As in most cases the consequences of accidents do not last beyond two months, the local commissions must perform the greater part of the work unaided. Together with this their principal business, they also have other work of a preparatory nature, such as, that of ascertaining the amount of annual wages paid members, on the basis of which their contributions are fixed.

The Central Mutual Society (*Centrale Landbouw-Onderlinge*) is under management of the College of Commissioners (*Commissarissen*), consisting of representatives of the provincial insurance organizations. The financial management is in the hands of a board, composed of two persons appointed at the general meeting. There is, besides, a *Commissie van Toezicht* for supervision of the business and a commission for the examination of the balance sheet and the book keeping: both these commissions are composed of *Commissarissen*.

The Central Society provides for compensation in the more serious cases, those requiring medical attendance for more than two months or resulting in death. It thus serves in some degree as a reinsurance institute. Besides this, it is the ordinary administrative body, dealing with every question of technical administration or of general legal character. For this part of its work, together with other organizations uniting with it for the same object, the *Centrale Werkgevers-Risico-Bank* and the *Rechts-Risico* (Legal Risk) association, it has founded an excellent and very efficient administrative body, the *Centraal Beheer*, to which the greater part of the administrative work is entrusted. In this way it has been arranged that the organization, still in its youth, might from the start have staff trained to settle the difficult problems it has to deal with, without incurring excessive expense.

In addition to the organization proper above described, there are also arbitration Committees (*Commissies van Scheidslieden*) in the various provinces, deciding appeals against the decisions of the management. At the end of 1912 there was further founded a Higher Commission (*Hoofdcomismissie*) as a second court of appeal. These Commissions are composed of a president, a secretary and four members, with their deputies, half of whom are labourers.

Benefits. — According to the accident regulations established by the Central Society, and considerably extended by the plenary meeting of December 19th., 1912, compensation is given for every accident to any one hired for agricultural work. Only those labourers and employees engaged exclusively for work not of an agricultural kind, as, for example, bakers, are

excluded from the insurance. But a servant, who has to attend to work of various kinds, and amongst it also agricultural work, is insured for the whole time he is working. Children of the farmers, over ten years of age, if they also take part in the farmwork, are considered as labourers. They can, however, at their own request, be excluded from the insurance.

The idea of what constitutes an accident was also considerably extended at the general meeting of December 19th., 1912. First of all a labourer had only a right to compensation when injured by an accident while engaged in agricultural work. Now it is no longer considered whether the accident is directly due to certain occupations, but it is enough that there is a connection between it and them. In addition, it is no longer necessary that the accident should be connected with an agricultural occupation, it is only necessary that it should be connected with some work with which the labourer was entrusted by the farmer.

Since January 1st., 1913 it has become possible for the landholders to insure themselves personally against accidents. As the small farmers need to be insured equally with the labourers, a separate insurance branch was first founded for them in 1910. But this led to no result and so now the proprietors, on making application, are insured in the same way as the labourers. They are chiefly insured against accidents in agricultural work. But insured landholders, if victims of accidents, receive compensation also in all those cases in which a labourer would be entitled to it.

The members' meeting on December 19th., 1912 made provision for a very useful extension of insurance, deciding that many professional maladies must be placed on a par with accidents. The administration (*College van Commissarissen*) has to compile a list of maladies that may give claim to compensation. This list cannot at first be very large, because science has not yet established many elements by which we may judge with certainty of the origin of diseases in relation to different occupations.

For the masters it is a particularly important thing that the risk of what is called civil liability is now covered by insurance. Since the financial consequences of article 1,638-x of the civil code were already included in the insurance, the members' meeting of December 19th., 1912 decided also to include claims for compensation based on articles 1,401-1,407 of the Code, already mentioned. Thus, if a master is obliged, in accordance with the above articles, to compensate a third person, the amount of compensation is paid by the association, provided the injury is caused by one of his workmen or connected with the execution of work of an agricultural character. The object of this limitation is that the association shall only undertake the risk of accidents due to the master personally or to his labourers in the exercise of their proper professional work. For this purpose, it has also been established that the administration of the Central Society (*College van Commissarissen*) may refuse to undertake these liability risks in the case of certain occupations and work in which the possibility of third persons being injured is particularly great. Thus, by virtue of a decision of the administration of April 8th., 1913, no compensation is given

or injuries done by motor cars or motor cycles or firearms or vehicles not used for farm work. There is a further limitation of insurance of liability, in that the maximum eventual compensation is fixed at 10,000 florins in case of one person being injured and at 25,000 florins in case of more victims, and at 2,500 florins in case of damage to property.

A special separate branch of the institute has been started for the insurance of domestic servants against sickness, the master having to provide them, in terms of article 1,638-γ above mentioned, with medical attendance and treatment for six weeks. Many offices have been opened for this purpose, the work of which is independent of that of the other insurance branches.

We shall now briefly consider the benefits provided for the insured labourers by this voluntary institution. In establishing the regulations for accidents in work, the benefits the law of 1901 granted to the industrial workmen have been taken as a standard. There has, however, been some departure from that standard in various points of detail.

The labourer, first of all, receives medical treatment, unless this has been provided for in some other way. Besides this, compensation is given to him for the disablement caused by the accident. And as this compensation is given for loss of wages, it must be calculated upon the wages. In case, however, the disablement lasts only a few days, no compensation is given, since it is not held advisable to relieve the master of the obligation, imposed by article 1,638-c of the Civil Code, of continuing the payment of wages in the first days of sickness and also because compensations for accidents of small moment cause disproportionate labour and expenditure. The term in which no compensation is paid was at first 10 days, but, in consequence of requests from various quarters, it was reduced to 5 days, from January 1st., 1913.

In case of disablement lasting more than 5 (at first 10) days from the date of the accident, a distinction must be made between temporary and permanent disablement. In case of temporary disablement the labourer receives 70 % of the wages he would presumably have received; if, however, the disablement is only partial, the compensation is reduced in proportion. The expenditure is borne, up to the end of the first two months, by the provincial associations and after that by the Central Society.

In case of permanent disablement or permanent reduction of working capacity, a pension is granted that may amount at most to 70% of the wages, and is fixed in proportion to the degree of diminution of working capacity. Instead of a pension, the management and administration may grant the labourer, if he desires it and it is considered to his interest, a lump sum of 80% of the capitalised value of the pension. If the working capacity is diminished by less than one tenth, in any case a lump sum is paid. In fact, a diminution of so little importance is easily compensated by the man himself after a little time adapting himself to the circumstances; and besides pensions of absolutely insignificant amounts are of little value for the pensioners, while they are a source of heavy expense to the insurance office.

The compensation was at first 312 times the daily pay (equal, that is, to a year's pension); but, in consequence of the changes introduced at the end of 1912 in the regulations for accidents in work, it has been increased to three times that amount.

In case of mortal accidents, the widow receives for her natural life or until she remarries, 30 % of the deceased's wages, and every child receives 15 % up to his or her seventeenth year; however, the total pensions of the widow and children may not exceed 60 % of the deceased's wages. Further, in 1913, the insurance was made to include the funeral expenses, to the amount of 30 times the daily wages.

It must also be observed that in case of accidents caused intentionally or through serious negligence on the part of the labourer, there is no claim to any compensation, and proceedings may even be taken against a master accused of having caused the accident, voluntarily or by serious negligence. On the other hand, the admission of members is subject to the approval of the local commission after consideration of their character.

Masters' Contributions. — The costs of insurance are paid by the masters. The members must pay an entrance fee in proportion to the amount of wages they pay in the year.

It is calculated as follows :

for masters paying annually	1,500 florins in wages . . .	3.00 fl.
" " "	from 500 to 1,500 fls. in wages . . .	1.50 fl.
" " "	less than 500 fls. in wages . . .	1.00 fl.
" farmers not employing labourers		0.60 fl.

In addition to the entrance fees, which are used to pay for the costs of installation, the funds for purposes of actual insurance are obtained by means of the contributions in proportion to the wages paid by members to their labourers.

In determining the amount of wages, first of all the information supplied by the masters is considered; lists (*loonstaten*) are made out at each payment of wages, showing the total amount paid; and the number of persons employed, the number of the employers' children who are insured and their wages, as well as the cost of maintenance of such children, the labourers and servants living in the house and the amount of wages paid in kind. In this way, the amount of wages paid by the master and received by the labourers, in any form, is accurately established. These lists of wages are far simpler than those instituted by the law of 1901 on industrial insurance; in accordance with that, a separate list had to be made for each labourer and the wages received had to be entered week by week, whilst in the case of the mutual agricultural insurance societies only one entry is made each time of the total amount for all the labourers. In the case of such masters as do not fill in these lists, and when the accuracy of the information furnished is doubtful, the amount of wages is calculated by the Local Commission on the basis of the number of labourers, the nature of the work and the average wages paid in the district for such work.

It will be enough here to mention in passing that, besides the organization with which we have dealt, there are some other agricultural mutual benefit and accident insurance societies in Holland, for which the insurance institute founded by the Dutch Peasants' League serves as centre. We shall deal with these specially in a future article.

§ 3. INSURANCE WORK OF THE LANDHOUW ONDERLINGE
IN THE YEARS 1910, 1911 AND 1912.

The external development of the Institute may be seen from the following figures:

Date	Number of Provincial Associations	Number of <i>Afdelingen</i> or of Local Commissions	Number of Registered Members	Amount of Wages — Florins
January 1 st , 1910	7	—	3,699	5,348,481
1911	10	202	6,198	9,582,132
1912	10	206	8,024	11,423,957
1913	10	213	9,378	13,946,459
July 15 th , 1913	—	—	11,017	15,640,000

The special branch for domestic servants' disablement insurance had, January 1st, 1914, 44 dependent sections, with 1, 418 members, and on January 1st, 1913, 61 sections with 2,339 members.

The number and gravity of the accidents is seen in the following table

Accidents	1900	1911	1912
not necessitating any expenditure .	76	123	133
requiring only medical attendance	132	300	333
giving claim to temporary compensation for less than two months	515	850	1,030
giving claim to temporary compensation for more than two months.	46	75	79
giving claim to pension for life . .	3	5	9
total	9	12	14
Total . . .	781	1,365	1,598

It is very important to know the causes to which the accidents are attributed, as every insurance business must seek not only to make losses that have occurred, but also to make proper provision to pre-

vent the occurrence of accidents. The "*Landbouw-Ongevallen*" has sought to do so from the first. The experience of the first three years is not yet sufficient for general precautionary measures of a technical character to be based on them. However, the Central Society in its annual report publishes detailed information in regard to the causes of accidents so as to induce the farmers themselves to adopt precautionary measures on their own farms with a view to the prevention of certain accidents of great frequency and to see that the labourers exercise prudence in the performance of certain kinds of work.

The following table shows how the accidents that occurred on the year 1910, 1911 and 1912 may be classified according to their main causes:

Causes	Number of Accidents	Total Period of Disablement (days)	Fatal Accidents	Total Expenditure (Florins)
Due to the Employment of Vehicles.	499	15,102	9	22,874.9
" Animals	636	15,254	5	28,082.5
" the Employment of Agricultural Machinery	171	4,574	1	9,532.4
" Falls	671	17,974	5	31,251.3
" Falls of Objects, Implements, etc.	102	3,330	2	8,624.6
" Bruises	384	7,092	1	8,178.1
" Dislocations,	295	7,345	1	10,863.1
" the Use of Edged Tools	480	8,818	1	18,371.1
" Various Causes.	512	9,673	10	35,453.1
Total	3,750	89,162	35	169,225.1

In the financial statement at the end of this article we show the amount of the working expenses, the cost of medical assistance and contributions paid, as well as the total amount of the members' contributions.

We may learn from this information that the total cost of administration, very much decentralised (Central Society, Provincial Associations, *Afdeelingen*), with very various duties, is comparatively very small. Notwithstanding the heavy expenditure in the first years on installation and propaganda carried on by means of the press and meetings, the working expenses were in 1910 and 1911 only 40 %, and in 1912 33 % of total expenditure. This is principally due to the great assistance given by the members personally, who act as secretaries and members of

Afdeelingen. Naturally, as the number of members increases the insurance becomes gradually cheaper; it must also be borne in mind that, easily understood, the working expenses and the expenditure in connection with accidents decrease in proportion as the wages insured increase, as may be seen from the following table for the year 1912.

Provinces	Amount of Wages (Florins)	Expenditure in connection with Accidents (per Hundred Florins)	Other Expenses (per Hundred Florins)
and.	2,760,976	15.2 cents	15.2 cents
ingen	1,798,801	15.7 "	10.0 "
the	782,510	29.8 "	16.5 "
ssel	244,257	32.7 "	26.4 "
lers	341,533	30.2 "	22.4 "
ht	296,253	33.7 "	18.1 "
1 Holland.	2,266,348	26.6 "	14.2 "
2 Holland	2,201,032	24.1 "	17.9 "
nd	1,999,954	24.5 "	11.5 "
3 Brabant	579,744	26.4 "	12.2 "
bers registered directly with the Central Society	675,051	26.1 "	—

§ 4. GENERAL IMPORTANCE OF THIS BRANCH OF INSURANCE.

The insurance of agricultural labourers against accidents in their work, independently of any compulsion on the part of the State, is an excellent proof of the lofty social sentiment animating the Dutch farmers, as only a small portion of the assistance and compensation received by the labourers means of this insurance is provided for in the Civil Code in its clauses respecting labour contracts. All the other benefits are voluntarily on the part of the farmers associated for the work of insurance, and they, notwithstanding the constant rise in wages and the many other burdens under which agriculture labours, have not hesitated to take on themselves this expenditure also. Many of them have given their time and labour personally to the work, co-operating freely or for a very small compensation for the business as secretaries or members of *Afdeelingen*.

But agricultural accident insurance in Holland is not only based on recognition of the social duty of assisting the labourers, victims of accidents in agricultural work, but also on enlightened considerations of a

practical nature. As we have seen, the movement in favour of this kind of insurance was the result of the law of 1901. That law, which considerably improved the position of the industrial workmen, threatened to increase the rural exodus to the cities and industrial centres, so that it was to the interest of the farmers themselves to grant their labourers a similar improvement of their conditions.

But, the danger of the introduction of compulsory centralised Government insurance was a specially strong motive urging the farmers to found an institute of their own. All the agricultural associations called upon to express their opinion on the matter declared that a system on the plan of the industrial insurance, such as was provided in the 1905 law, would be unsuitable and undesirable. In the case of industrial insurance the master retains the right to insure his labourers with the State National Insurance Bank in Amsterdam, or with any other business recognised by the State: yet every thing in the nature of inquiry into accidents and the estimation of the loss and of the amount of compensation due is entrusted exclusively to the National Bank. Such centralisation in the case of agriculture, in view of the large number and scattered position of the farms, would be the cause of great inconvenience and considerable expense. It was feared that in this way insurance business would pass completely into the hands of mere employees and that the direct participation of the farmers, which contributes so largely to keep down the cost and to extend the principle of the society in the agricultural world, would cease altogether. Hence the general desire of the agricultural associations is that the State should indeed make it compulsory for the farmers to ensure their labour against accidents, but that for the rest it should limit itself to supervising the development of those forms of insurance institutes selected by the farmers themselves.

The Government Commission for Agriculture (*Staats-Commissie voor Landbouw*) founded in 1906 to study the question of agricultural labour was fully in accord with this idea, in its conclusions in reference to agricultural labourers' accident insurance. In its *Rapporten en Voorstellen* published in 1909, this Commission presented 18 proposals, in the place advocating the most complete decentralisation possible of the insurance system and the participation of the farmers in the management of this important business.

And, since the farmers with their insurance business have in the meantime begun their own action and given proof of their competence, it is very probable that when the problem comes to receive a legal solution their desires will be given full consideration.

Annual Summary of the Entire Insurance Business from 1910 to 1912.

(In Florins) (1).

	1910	1911	1912
I. WORKING EXPENSES.			
Central Administration	21,905.655	17,020.52	26,490.97
Provincial Mutual Societies	12,870.32	16,360.61	19,446.37
Total . . .	34,775.975	36,211.235	47,982.86
2. MEDICAL ATTENDANCE AND COMPENSATION.			
Central Society:			
Temporary (2)	4,890.61	6,858.475	8,613.05
Permanent (2)	29,347 —	38,970.04	56,825.64
Total . . .	34,237.61	45,828.515	65,438.69 (3)
Provincial Mutual Societies	16,720.465	28,669.70	33,644.625
Total of Expenditure due to Accidents. . .	50,958.075	74,498.215	99,083.315
TOTAL AMOUNT OF WAGES INSURED.	8,959.075	11,896,846.15	13,946,459 —
4. CONTRIBUTIONS COLLECTED PER 100 FLORINS OF WAGES			
Central Society:			
Working Expenses	0.245	0.144	0.19
Medical Assistance	0.385	0.383	0.47
Reserve Fund	0.05	0.05	—
Provincial Mutual Societies:			
Medical Assistance	0.187	0.241	0.241
Other Expenses	0.143	0.138	0.139
Total Contributions Collected . . .	1.01	0.956	1.04

(1) A Dutch florin = 2.0832 francs.

(2) The amounts shown include all expenditure (medical assistance and compensation for wages) due to accidents within the year, borne by the Central Society. Further amounts paid in successive years are calculated at their value at the moment of making out the accounts.

(3) The figures for 1912 are very high on account of the comparatively large number of accidents, causing the expenditure of quite 28,000 florins that year.

Part III: Credit

CHILE.

WORK DONE BY THE MORTGAGE CREDIT BANK IN 1912.

SOURCE:

DE CREDITO HIPOTECARIO: Informe correspondiente a las operaciones del año 1912. (*Mortgage Credit Bank. Report of Transactions for 1912*). Valparaiso, Sociedad Universal, 1913.

§ I. SOME PARTICULARS RESPECTING THE MORTGAGE CREDIT BANK.

In a previous number of our Bulletin (I) we spoke at some length of this important land credit institution, describing its constitution and organization, and pointing out the great services rendered by it to agricultural economics in Chile. Before giving an account of its working in 1912, it may be desirable to enumerate its essential characteristics.

The Mortgage Credit Bank was legally constituted in 1885 for purposes of public utility. As it had no share capital, it was not intended to make any profit, except so much as might be necessary to cover the cost of sinking and to form a reserve fund. Its object is to facilitate all long term mortgage credit transactions and the repayment of loans by means of annual instalments including interest and sinking fund. For this purpose, the Bank issues mortgage bonds, personal or to bearer, for a value of 1,000, 500, 200, and 100 pesos, redeemable by drawings.

The loans are made in bonds, and must be guaranteed on first mortgages: they must not exceed 50 % of the value of the land mortgaged. In practice this limit is reduced to 40 %, and even to 25 %, according to the character and quality of the land. Great administrative prudence has been shown

(1) *Bulletin of Economic and Social Intelligence*, 1913, No. 3.

in the drawing up of the rules for the concession of loans secured on mortgage of urban real estate. The minimum limit, fixed by the organic law at 500 pesos, is in practice 5,000 pesos. The borrower must pay every year interest up to an amount not exceeding 8 %, a contribution to the sinking fund to be agreed upon freely and, lastly, a contribution to the reserve fund and working expenses, of not more than one-half per cent.

To guarantee the holders of bonds, besides the mortgages, there is the reserve fund, which forms the true capital of the Bank. This fund is constituted by means of the above mentioned contributions, the interest on delayed payments, the mortgage bonds drawn by lot, and interest not drawn within the allotted term.

That the bonds may be more readily accepted on the market the law permits of their being deposited as a guarantee for the exercise of any public office and for judicial deposits, also in general of their being purchased for investments for minors and for charitable institutions. The State itself has invested in mortgage bonds of this Bank the capital forming the fund for the redemption of its paper.

The direction and management of the bank are entrusted to a managing director, a cashier, an auditor, a secretary and a Board of Management all appointed by the President of the Republic. The Board of Management is formed of the managing director, the auditor and four members, two appointed by the Senate, and two by the Chamber of Deputies. Of the two last, one must be chosen from among the largest borrowers from the Bank.

The Mortgage Bank has made great and rapid progress: in 1868 it loans in bonds amounted to 4,000,000 pesos, and rose to more than 300,000,000 in 1912.

We shall now give some particulars of the work of the Bank during 1912.

§ 2. SPECIAL TRANSACTIONS IN 1912.

The managing director's report first gives an account of three special transactions carried out by the Bank. The first of these was the issue of bonds on foreign markets to the value of 11,500,000 francs at 5 % in gold, to be repaid in instalments of 1 %. This was effected through the French bankers, Louis Dreyfus and Co., and Otto Benberg and Co. in accordance with the contract made with them on May 19th, 1912 (1).

The object of this transaction was to facilitate the granting of loans in gold. The results were satisfactory; the bonds continued to be quoted on the Paris Exchange at an average rate of 97 %.

The second special transaction was the conversion of bonds payable in current money (2) into bonds payable in gold. By the law of February

(1) In 1911, in accordance with the above mentioned contract, the Bank had issued mortgage bonds in gold at 5 % and 1 % for 40,000,000 francs and for £ 176,260.

(2) By current money (\$) is meant the paper peso; in January, 1913, its average value was frs. 1.057; in December it fell to 0.985 fr. The gold peso is equivalent to fr. 1.89.

th., 1912, the President of the Republic was authorised to sell, either at home or abroad, the bonds of the Mortgage Bank payable in current money, belonging to the State and appropriated by law to the payment of the national debt and to the formation of the guarantee fund of the Nitrate Credit Bank.

By the same law, the Government was empowered to substitute, through the Mortgage Credit Bank, a part of these bonds to the value of 55,000,000 pesos, for an equivalent amount in bonds payable in national or foreign gold at 5 % interest with 1 % sinking fund. The law prescribed the manner in which the Bank should proceed for the destruction of the bonds for which the new issue was substituted, and guaranteed the Bank against eventual loss which it might suffer in issuing the new bonds, owing to the alteration of the standard of international exchange. The Germanic Bank of South America offered, in the name of a German banking syndicate, to undertake the financial business. By a definite contract of October 11th., 1912, it was stipulated that the syndicate should purchase the 5 % bonds issued by the Bank for the sum of 30,999,984 gold pesos of 18 pence or 47,999,976 marks, corresponding with the sum of 50,917,474 current money, the nominal value of the bonds held by the State and deposited in the Bank of Santiago. The issue had to be made in 117,647 certificates of 500 francs each (408 marks).

The purchase price agreed upon was 164 pesos 25 centavos current money, for every 100 pesos in gold of 18 pence. The term for repayment of the bonds was fixed at 37 years, the Bank reserving the right of effecting extraordinary payments. The bonds are payable to the bearer, and are printed in Spanish, German, French and English; they are exempt from any tax whatever in Chile. By the terms of the contract the banking syndicate was at liberty to invest the bonds for its own exclusive account, whenever it deemed it desirable.

The bonds in current money belonging to the State were consigned to the Bank, which, by means of an office specially founded for the purpose, proceeded gradually to burn them. The issue of the new bonds cannot, owing to the necessary formalities, be completed within the year. The results of the subscription of May 14th. at 96¼, with half yearly interest beginning from February 15th., were very satisfactory. The bonds were officially quoted on the Berlin Exchange and thus another important financial market was opened to Chile.

In addition its own special work, the Bank has undertaken the management of the affairs of the Nitrate Credit Bank. This institution, by law of September 11th., 1912, had to cease business, and the Mortgage Credit Bank has had to undertake the issue of documents of title and the work in connection therewith till all liabilities are paid off. The Treasury is to compensate the Bank for any losses which this might involve. Under the above mentioned law, the Bank also took over the debt of the Valparaiso Company for £31,202 and that of the City Railway Company of San Bernardo for 106,937 pesos.

§ 3. LOANS.

The amount of Loans made in current money in 1912 exceeded that of those made in former years. In 1912 there were 1,038 loans made, of a total amount of \$ 71,503,200, against 896 loans in 1911 of \$ 57,761,400. There were 51 loans in gold (francs and pounds sterling), and of these 44 francs for a total amount of 11,500,000 francs and 7 in pounds for £ 462,240. In 1911 the loans in gold numbered 254, of the value of 40,024,000 francs and £ 176,260.

Of the 1,038 loans in current money, 301 were granted on rural property and 747 on urban property, in the three cities of Santiago, Valparaíso and Concepción, the rural loans being fewer in number than the urban yet exceeding them in value by more than 5,000,000;

Rural loans	301	for	\$ 38,308.2
Urban "	737	"	" 33,195.0
	1,038		\$ 71,503.2

Of the 51 loans in gold, 31 were secured on urban and 20 on rural land

	In Pounds	In Francs
Rural loans	2 for £ 7,040	18 for fr. 6,263,000
Urban "	5 for £ 455,200	26 for fr. 5,237,000
	7 for £ 462,240	44 for fr. 11,500,000

The greater number of the urban loans were contracted on real estate in the city of Santiago (27,518,000 pesos out of 33,195,000 pesos; 4,093,000 francs out of 5,237,000 francs). Of the rural loans, those in the province of Santiago come first; then those in the provinces of O'Higgins, Colchagua, Aconcagua, etc.

The ordinary sinking fund payments amounted to \$ 5,222,700 for loans in current money, 1,455,000 francs for loans in francs and £ 4,390.1 those in pounds sterling. The special sinking fund payments amounted to \$ 22,882,900 for the former and 24,000 francs for the two latter classes.

The mortgage transactions up to December 31st, 1912 were thus:

5,128 loans in pesos per . . .	\$ 280,052,500
286 loans in gold	Fr. 51,498,000
20 loans in pounds sterling £	647,500

These 5,434 loans were divided as under, according to the nature of the property mortgaged:

Loans on Land	In pesos		In gold (francs)		In gold (pounds sterling)	
	Nº	Amount	Nº	Amount	Nº	Amount
Urban	3,025	110,572,400	173	20,188,500	8	476,680
Rural	2,103	169,480,100	113	31,310,000	12	170,820

Urban loans were granted very largely (1) on real estate in the city of Santiago; while the rural loans (2) principally benefited the provinces of Antofagasta, Colchagua, O'Higgins, Talca and Aconcagua.

§ 4. ISSUES.

The bonds issued in 1912 correspond with the loans contracted. There was of 71,503,200 pesos thus divided: 38,961,000 pesos in bonds at 7%; 26,514,200 pesos in bonds at 6%; 5,493,000 pesos in bonds at 5%.

The issue in gold amounted to 11,500,000 fr. and £462,240 in bonds at 5%. We must also mention a special issue in gold at 5% made by the bank in accordance with the law of February 12th., 1912, of which we have already spoken in section 2; these new bonds substitute the destroyed certificates of various series owned by the State. The value of the issue negotiated with the German banking syndicate is 47,999,976 marks, equal to 123,500 fr. This transaction, on the one hand, caused an extraordinary redemption of bonds in current money, equal to the amount of the destroyed certificates, and, on the other hand, an extraordinary issue in gold equal to the amount in marks of the bonds substituting them.

Taking into account the ordinary as well as the extraordinary issue, the total amount in gold of the bonds is 70,323,500 fr., and £462,240.

We give here the balance of the issues in current money and gold on December 31st., 1912.

	Pesos \$	Francs Fr.	Pounds sterling £
Balance on January 1st., 1912	218,347,700	39,824,000	184,485
Issued in the Year	71,503,200	70,323,500	462,240
Total . . .	289,850,900	110,147,500	646,725
Paid off in the Year . . .	70,023,500	1,479,000	4,390
Balance on December 31st.,	219,827,400	108,668,500	642,335

(1) 2,774 loans in current money for \$93,596,000; 149 loans (in gold) for 15,221 fr., and 6 loans in gold for £451,680.

(2) 495 loans of \$45,658,300; 36 loans in gold of 9,768,000 fr.; 4 loans in gold of £77,000.

The Bonds in circulation were distributed on December 31st., 1912, as follows:

	8 %	7 %	6 %	0 %
In current money . . . \$	54,378,600	104,068,000	50,881,400	1,500,400
In gold { francs Fr.	—	—	—	168,668,500
{ pounds sterling . £	—	—	8,310	634,025

§ 5 RESERVE FUND.

On December 31st., 1912, the reserve fund of the Bank amounted to \$ 8,408,977.54, including the balance of the previous year and a working capital of 698,422 pesos. The special reserve fund formed by the conversion of the paper bonds of the State into gold was increased during the year by \$ 21,200 and now stands at 720,000 pesos.

We have thus shown in this rapid sketch how the Chilean mortgage system pursues its onward course, rendering great service to the agricultural prosperity of the country.

FRANCE.

SAVINGS BANKS AND THE INVESTMENT OF THEIR CAPITAL.

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§ 1. THE SAVINGS OF THE PEOPLE AND THE PROBLEMS OF LAND CREDIT

The problems of credit cannot be solved without a knowledge of two fundamental points: the requirements of capital of a definite class of persons and the quantity of capital available to supply this need. Added to this, there must be knowledge of all the institutions which have to collect the capital and invest it safely and serve in any way as intermediaries between the great body of depositors and all those who are in want of credit.

A systematic consideration of the financial questions in which farmers are interested must not be limited merely to problems regarding rural credit. It is necessary to consider the sources from which capital is obtained and may be obtained for agriculture by the savings institutes. In conformity with these views, we have already published in this *Bulletin* various monographs, articles and notes on the statistics, organization and investment in many countries of the people's savings, almost exclusively the result of thrift and not of lucrative investment. It is these savings, which by their nature may be better than anything else employed for the advancement of rural credit institutions not aiming at capitalistic speculation but solely seeking the interests of agriculture. People seeking safe investments rather than high interest, which has its risks, may find in agriculture, under due guarantee, an investment on the safety of which they can fully rely. On the other hand, farmers are generally only in a position to borrow at a low rate of interest and they can find the money they require at such rate on application to the institute collecting popular savings, such as, the savings banks (ordinary and postal) and the thrift institutes. Hence the desirability of explaining how popular saving is organised in various countries, and showing the amounts saved by the agricultural classes, and the amount of capital invested by them in agriculture, and also of that not so invested.

In continuance of the series of articles we have already published on the organization and working of Savings Banks in various countries, the present one refers to those of France and will deal with the problem which for some time have agitated the public mind there as to the investment of the capital accumulating in both the ordinary and the Postal Savings Banks (National Savings Bank) (1).

§ 2. THE TWO TYPES OF SAVINGS BANKS.

The first Savings and Thrift Bank in France was established in Paris in 1818 by the managers of the French Maritime Insurance Company as a limited liability society for the benefit of farmers, labourers, artisans

(1) In this article we do not take into consideration all the institutions in France which absorb the savings of the people such as the "mutual societies", capitalisation societies and insurance societies. We leave for a future time the consideration of the quantity and management of French capital every year invested in mortgage bonds, for the promotion of the home and foreign enterprise and the foundation and assistance of credit institutions, and which are many for land and agricultural credit in foreign countries.

vants, and other persons in modest circumstances, but provident and frugal. Similar institutions soon followed in other cities of France. As up to 1835 there was no law for the regulation of these banks, there was great diversity in their constitutions. Some were limited liability societies, others benevolent institutions, others were founded by municipal councils, others were out of branches of already existing institutes, notably pawn offices.

The law of June 5th., 1835 provided that the establishment of Thrift Savings Banks must be authorised by Royal Order and that the deposits must be placed in current account at the Treasury. These decrees are still the pivots on which the more recent legislature turns.

In 1829 there were only eleven banks; in 1835 there were 159 with 171 branches; in 1855 the number had risen to 386 with 171 branches, and in 1881 there were 542 banks with 908 branches, and the number of banks has, with but slight fluctuations, since then been stationary.

Yet, notwithstanding this wide diffusion, Savings Banks have not fully done their way among the more humble classes of society, those classes for which in view of their unhappy and precarious economic condition, saving and thrift are especially necessary. In 1861 England led the way in the successful establishment of Postal Savings Banks and was successively followed by Italy, Belgium, Canada and other states and France, by law of April 9th., 1881, founded a National Savings Bank (Postal Banks), administered by the State and worked through the Post Offices. Later the sphere of this Bank was extended to Algiers and Tunis and branches were founded abroad, where the French already had post offices at Alexandria, Port-Said, Tangiers etc. Thus, we see two very similar types of Savings Banks, the older, the ordinary savings banks, working as private institutions of public utility, yet under State direction; the newer, the Postal Savings Banks, real State institutions.

It was however needful that by the law of July 20th., 1895, the rules which had been successively established for the ordinary and postal banks should be brought into accord with each other so that the sphere of action of these institutions might be clearly defined.

§ 3. ORDINARY SAVINGS BANKS.

The number of these banks, which in 1881 was 542 with 908 branches, had risen in 1910 to 550 with 1,770 branches. It is seldom necessary now to create new ones, because these banks have generally been instituted by the commune to supply a manifest need, and the existence of one in a commune prevents the foundation of another in the same commune. Their sphere of action is not, however, limited to their own district, for they may receive deposits from all who desire to transact business with them. Some of them are under the real and unlimited control of the communal administrations, while others enjoy a semi-autonomy, but there are 107 completely independent of municipal authority. They are all at liberty to establish branches.

The management is entrusted to a board of directors, generally five in number, who give their services gratuitously, receiving, if desired, emoluments as tokens of their having been present at the meetings of the council. All persons, women and minors included, may make deposits on their own account or on that of others.

A legislative provision, quite peculiar to French savings banks, enjoin that no person shall hold more than one savings bank book, nor any one obtaining two books, whether from the same bank or from two ordinary banks, or from one ordinary and one postal bank, risks losing the interest on the sums deposited for a period, which may extend three years.

Deposits must not be less than one franc, and in no book may more than 1,500 francs be entered. Should the deposits exceed that amount, the government 20fr. stock is purchased in the name of the depositor. Mutual Aid Societies, charitable institutions, co-operative societies and similar organisations alone are authorised by the Department of Labour to make deposits to the amount of 15,000 fr.

The rate of interest is the same as that of the Deposit and Consignment Bank, except for a deduction of not less than 25 centimes and not more than 50 centimes, each bank is at liberty to fix itself. Since the rate fixed by the Deposit and Consignment Bank is at present $3\frac{1}{4}\%$, that of the Savings Banks varies from 3 to $2\frac{3}{4}\%$, according to the Bank.

At the request of the holder, an account opened at one savings bank may be transferred to another. Payments are generally made by the bank at sight, but they are only obligatory at fifteen days' notice. In case of absolute necessity, or to avoid a crisis in times of panic, the Decree of the Council of State may limit the payments to 50 fr. per fortnight. This is the so-called *saving clause* which was made law in 1881, in order to avoid a repetition of the inconvenience experienced during the crises of 1848 and 1870.

The crisis of 1848 overtook the savings banks with a debt to the depositors of 355,000,000; of this amount 65,000,000 frs. were in current account at the Treasury. Owing to the political situation, many of the depositors crowded to the banks to claim their money. As it was impossible to satisfy them at once, the Government made solemn promises to reassure them, and by a decree of March 7th., raised the rate of interest to 5% . But the crowd of creditors at the banks remained undiminished, and a decree of March 9th. limited payments to 100 fr. for each book and offered to convert the remainder, half into bills on the Treasury at from 4 to 6 months, and the rest into 5% Government stock at par. But at that time the Treasury bonds were 30 or 40 below par and Government stock was quoted at 70. As a remedy for this state of affairs, the books were converted by a decree of July 7th. into certificates of 5% stock at 80 fr., a figure too high in view of the quotations, and later, on November 21st., the deposits thus converted received a bonus of 8.40fr. for every 5fr. of stock, that is a sum equal to the difference between 80 fr. and 71.06 fr., the average rate for the three months preceding the day on which the conversion was ordered.

The crisis of 1870 was met in another way. A series of decrees (September 17th., October 16th., November 17th. and December 17th., 1870) authorised payments of 50 fr. at a time. The necessary capital was supplied the Bank of France, from which the *Deposit and Consignment Bank* obtained 40,000,000 millions frs. at a rate varying from 5 $\frac{1}{2}$ to 6 $\frac{1}{2}$ %. This transaction cost the *Bank* about 844,000 fr.

As regards the investment of savings, the banks are forbidden by law to administer the deposits they receive and are obliged to pay them to the *Deposit and Consignment Bank*, a State institution.

With the exception of the sum which must remain available for payments, the deposits may be invested :

- (1) in State or State guaranteed bonds ;
- (2) in negotiable bonds representing capital entirely paid up, issued by Departments, Communes, or Chambers of Commerce ;
- (3) in land bonds or communal land credit securities.

The sums not invested as above, which must not amount to more than 10 % of the deposits, are placed in current account bearing interest at the rate of 4 % or deposited at the Bank of France.

The Deposit Bank administers the reserve fund. Every bank must contribute to its own capital out of donations, the difference between the interest received by the Deposit Bank and that paid to the creditors, and interest on its own capital. This capital may be invested in the purchase of fully guaranteed bonds. Up to the fifth of this capital, and all profits therefrom, the banks may use to purchase local securities issued by pawn offices or other institutions of public utility and may grant loans to co-operative societies or societies for the building of workmen's dwelling houses.

The savings banks are under the control of the State and a Superior Commission of Savings Banks at the Department of Labour must be consulted on all important questions respecting ordinary or post office Savings Banks.

§ 4. NATIONAL SAVINGS BANK (POST OFFICE SAVINGS BANK).

The object of this institution is to assist saving by means of the Post Office which is the most widely diffused administrative organisation in the country and is most in contact with the people. In the first working year (1882) 6,024 offices had already been authorized to receive savings and by the end of 1911 had risen to 8,124 and by September 31st., 1912 to 12,317. This rapid increase between 1911 and 1912 is due to the increase in the number of Savings Banks, even in places where there is no post office, the postmen being authorised to receive deposits and to make payments on behalf of the holders of post office books. In densely populated districts in this way communication between the postmen and the depositors has been rendered possible and convenient through the medium of the postmen.

The work is under the management and supervision of the Central Office of the National Savings Bank dependent on the Department of Public Works. The accounts of the National Bank (Post Office Savings bank) are audited by an accountant at the head office. All the rules respecting deposits and payments fixed for the ordinary savings banks are also in force for post office savings banks. There are special facilitations to assist depositors in the post office to form their savings. To encourage the poorest to economy, cards are distributed to which stamps may be attached to the value of one franc, the minimum amount accepted as deposit. On ships and in every body of colonial troops branch post office banks are established with the object of habituating the sailors and soldiers to save instead of wasting their pay.

Depositors in post office savings banks enjoy advantages over those in ordinary savings banks. The holder of a post office book may make deposits and receive payments in any post office, while the holder of an ordinary bank book must address himself exclusively to the office where he opened his account, unless he transfers it to another bank. A person who has opened an account in a French post office may, by virtue of international agreements with Belgium (1882) and Italy (1904) transfer his account to a Belgian or Italian postal bank, or keep his account in France, while depositing or withdrawing in any office of the above mentioned States.

The books of an ordinary bank may be transferred to the post office and viceversa.

Payments may be made at sight to those who keep their accounts at the Central Office in Paris. Those who reside in Paris and those who are only passing through the city may receive payments about half an hour after the request has been made. The owner of a current account in the Central Office may apply for his money in any post office in Paris or the suburbs by pneumatic post, or by telegraph at his own expense. The rate of interest paid to depositors is fixed in proportion to the profits on the amount deposited after deducting the working expenses, but it must not be less than $\frac{1}{2}$ % of the amount deposited. The deduction for expenses must be so calculated that the interest actually paid on postal deposits shall be at least 25 centimes less than that paid by the ordinary banks. The object of this is to protect the ordinary banks against the competition of the post office banks. At present the rate of interest is $2\frac{1}{2}$ %.

According to the law of April 9th., 1881, the National Savings Bank (post office bank) must every day pay its surplus into the Deposit and Consignment Bank. This bank keeps a part of the deposits in a current account with the National Savings Bank at a rate of interest which must not exceed that paid on Treasury bonds (law of December 26th., 1894). The amount must not exceed 100,000,000 (law of February 27th., 1902). The rest of the deposits are converted into Government stock or stock guaranteed by the Government.

Independently of its bills and acceptances and of its current account with the Deposit and Consignment Bank, the National Savings Bank

as a capital which on December 31st., 1912 amounted to 74,658,662 fr. according to the law, this may consist of:

- (a) donations and legacies made by outsiders;
- (b) unclaimed deposits belonging by right of prescription to the
- (c) profits on investments;
- (d) the capitalization of the interest on these sums.

§ 5. WORKING OF SAVINGS BANKS.

Now that we have shown in detail how the Savings Banks are organised, let us examine the statistics of the working of both types. The figures show us the characteristic difference in the deposits made in each group also the difference between the French system and that of other countries.

The ordinary banks are of greater financial importance than the postal banks. This is due to various causes.

The ordinary banks in 1882, the year of the establishment of the postal banks, had a capital in deposits of about 1,500,000,000 fr. and an endowment of 32,600,000 fr.; now, as every one knows, one of the forces which tend to augment deposits in every country is the accumulation of interest, of constantly increasing compound interest. The interest on the sum of 1,500,000,000 fr., already held by the ordinary banks when the postal banks had scarcely arisen, has in itself contributed to keep up their financial superiority. There are also other circumstances which help to explain the greater success of the ordinary banks: their higher rate of interest, their position in urban centres, or richer and more populous centres, restriction of every depositor to one bank book either in an ordinary savings bank or in a postal bank. This last rule induces many depositors to stay in the ordinary banks, as they prefer to obtain the higher rate of interest. On the other hand, as the ordinary banks are generally guaranteed by the communes, and their capital invested in Government stock, there is an appreciable difference in either type of bank as to the security afforded to depositors.

TABLE I. — *Situation of French Savings Banks from 1901 to 1912,*

Years	Number of Offices			Number of Books on December 31st.		Credit to Depositors		Capital of the Banks	
	Ordinary Banks		Postal Banks	Ordinary Banks	Postal Banks	Ordinary Banks	Postal Banks	Ordinary Banks	Postal Banks
	Banks	Branches							
				In thousands		(In millions of francs)		(In millions of francs)	
1901	547	1,333	7,772	7,246	3,806	3,349.0	1,080.4	144.4	4.1
1902	546	1,366	7,820	7,307	3,991	3,283.0	1,106.8	144.3	5.1
1903	549	1,436	7,870	7,326	4,144	3,187.8	1,118.0	150.4	4.0
1904	550	1,461	7,883	7,422	4,345	3,246.1	1,187.3	160.9	4.1
1905	549	1,493	7,884	7,557	4,577	3,376.5	1,278.3	166.5	4.3
1906	550	1,526	7,912	7,668	4,795	3,434.1	1,338.7	171.1	3.6
1907	549	1,573	7,938	7,794	5,035	3,543.0	1,433.5	174.0	3.8
1908	549	1,654	7,966	7,948	5,292	3,680.1	1,538.7	179.5	3.9
1909	550	1,712	7,919	8,116	5,542	3,833.4	1,639.7	186.0	4.4
1910	550	1,770	8,097	8,283	5,786	3,933.4	1,709.7	192.4	4.4
1911	550	1,803	8,124	8,392	5,971	3,908.9	1,704.1	199.2	5.1
1912 (1) . . .	—	—	12,317	—	6,187	—	1,745.6	—	4.8

(1) For 1912, we have only data relating to the postal banks. The last report of the ordinary savings banks, presented on July 10th., 1913, by the Department of Labour to the President of the Republic, shows their working up to December 31st., 1911.

Notwithstanding that the ordinary banks have fewer offices open to the public, they have a larger number of books in circulation than the Postal Banks. Of course the first receive larger deposits than the second, for their depositors are more numerous, as well as of a richer class than the depositors in the Postal Banks.

LE II. — *Average of Deposits and of Saving Banks Books in France from 1901 to 1912.*

Year	Average Deposit per Book in francs		Number of books per 1,000 Inhabitants		Average Deposit per Inhabitant in francs	
	Ordinary Banks	Postal Banks	Ordinary Banks	Postal Banks	Ordinary Banks	Postal Banks
1901	462.18	286.15	186	98	85.95	27.79
1902	449.29	277.28	187	103	84.26	28.38
1903	435.12	269.78	188	106	81.81	28.59
1904	437.34	273.23	190	111	83.31	30.28
1905	446.80	279.25	193	118	86.66	32.60
1906	447.84	279.20	195	122	87.48	34.07
1907	454.60	284.69	198	128	90.26	36.55
1908	462.99	290.77	202	135	93.73	39.10
1909	472.31	295.81	206	141	97.66	41.60
1910	474.87	295.49	211	146	100.20	43.26
1911	465.80	285.58	212	151	98.70	43.03
1912	—	282.12	—	154	—	43.50

by these figures we may the more easily perceive the greater importance of ordinary savings banks. This superior financial position of the ordinary over the postal banks may be observed in many other European countries where the two organizations exist. We give some savings banks statistics published in the *Statistische Korrespondenz* and already referred to in our Bulletin (1).

TABLE III — *Average Deposits and Savings Bank Books in some European States.*

Countries	Years	Number of Books per 100 Inhabitants		Amount of Savings per Inhabitant (In marks)		Amount of Savings per Book (In marks)	
		Ordinary	Postal	Ordinary	Postal	Ordinary	Postal
Germany	1909 . . .	0.23	36.37	1.11	98.78	485.54	271.62
United Kingdom	1910 . . .	4.07	26.35	23.75	76.73	583.47	291.19
France	1910 . . .	6.47	15.58	54.87	40.60	848.07	260.64
Italy	1909 . . .	7.39	24.97	30.12	46.55	407.24	186.46
Spain	1909 . . .	14.56	7.58	171.89	6.75	1,180.29	89.02
Sweden	1910 . . .	28.26	10.09	164.78	9.42	583.14	93.36

(1) January, 1913. Part III. International Statistics of Savings Banks.

There are two facts we learn from these figures. Generally, the number of books issued by the postal banks is larger than that issued by the ordinary banks, except in the case of Austria and Sweden, but the average amount of savings per book and per inhabitant is higher in the case of the ordinary savings banks (1). If we consider the total savings in the postal banks and in the ordinary banks, we may see by the figures in Table II, that about one third of the population have savings bank books. This is not an average but the absolute amount. In fact, as we have said, the law of July 20th., 1895 does not permit anyone to have more than one savings bank book in his own name. This is therefore quite a considerable amount, above all when account is taken of another very well known fact, that even the poorest classes of the French people invest a large part of their savings in the purchase of personal estate securities.

It is seen from the statistics of the French savings banks that the largest number of books contain entries of not more than 200 frs. But most of the capital deposited by savings banks is derived from books in which more than 200 frs. are entered. The concentration of wealth as shown in the entries of large deposits in the bank books is above all observable in the case of the private savings banks. On December 31st., 1911, 55.65 % of the total number of books showed deposits for sums inferior to 200 fr., whilst in the books showing higher sums, the total amount was 3,690,719,222 frs. or 94.45 % of the deposits in the ordinary banks at the said date. In the books showing deposits of above 1,500 fr. but reduced to that amount by the purchase of stock on account of that having exceeded that sum, we find on December 31st., 1911 a total of 1,828,821,306 fr. or 46.79 % of the total deposits.

Let us now consider the various classes of depositors, according to sex and profession.

In the the ordinary banks, since 1894, the increase in the number of books belonging to women has been much greater than in those belonging to men. In 1911, the ordinary banks issued 255,690 books to men, and 272,446 to women. But this excess of women depositors over men is not observable in the total number of the books of December 31st., 1911 (see Table IV), because in the previous years fewer books had been issued to women than to men.

(1) Exception must be made with regard to the United Kingdom, Belgium and Holland which countries the average amount of savings per inhabitant is higher in the postal than the ordinary banks. The explanation of this is that, either for historical reasons or because of the special organization of institutions for savings, savings bank books are few in proportion, and the deposits entered are small.

LE IV. — *Books of the Ordinary Banks on December 31st., 1911, according to the Sex of the Depositors and the Nature of the Societies or Associations.*

Sex of Depositors. Societies and Associations.	Number	%	Amount in francs.	%	Average per Book in francs
Men	4,237,547	55.77	1,916,817,163.85	49.64	452.34
Women	4,117,011	49.33	1,944,568,431.72	50.36	572.32
Total	8,354,558	100 —	3,861,385,595.57	100 —	462.18
Depositors of both Sexes	8,354,558	99.52	3,861,385,595.57	98.79	462.18
Societies and Associations	37,136	0.48	47,473,778.62	1.21	1,278.37
Total and General Averages	8,391,694	100 —	3,908,859,374.19	100 —	465.80

This shows that though women hold fewer books, they have hitherto invested a larger sum than that credited to men.

The postal banks have not classified the deposits according to the sex of the depositors, but have classified the books according to the sex of the holders. The figures correspond with those of the ordinary banks; during 1912, 10,848 books were issued to women against 8,604 to men, and on December 31st. of the same year there were 325,038 (or 55.29%) male depositors and 262,800 female (or 44.71 %).

The number of depositors in both the ordinary and postal banks are classified in the following table in respect to their trade or profession.

LE V. — *Depositors in French Savings Banks, according to Profession or Trade.*

	Ordinary Banks (1911)	Postal Banks (1912)
I. Heads of Agricultural and Industrial Enterprises	46,888	30,943
II. Day Labourers and Agricultural Workmen	51,639	53,080
III. Industrial Workmen	63,435	107,421
IV. Servants	39,737	65,856
V. Soldiers and Sailors	5,868	24,903
VI. Civil Servants	25,482	64,570
VII. Professional Persons	7,229	26,090
VIII. Landowners, Persons of Independent Means and Persons without Profession	84,381	94,673
IX. Minors without Profession	203,507	119,520
X. Persons without Fixed Residence	—	792

There are no statistics to show the amount of deposits made by each class. And it is impossible for us, as we should wish, to give the number of depositors belonging to the agricultural classes. Categories III, IV, and IX include depositors certainly of these classes, even if temporarily resident in cities. In other categories (I, II and VIII,) depositors belonging to the agricultural classes (heads of agricultural enterprises, landowners) are counted together with others who work in towns. In all these cases it is impossible to give the exact number of depositors belonging to the agricultural classes.

Besides the deposits of individuals, the statistics account for those made by societies, many of which are authorised to make deposits up to 15,000 fr. All the deposits, however, of societies and syndicates received in both ordinary and postal banks form but a small proportion, being only about 1 % of the total amount of the deposits.

§ 6. THE INVESTMENT OF THE CAPITAL OF THE SAVINGS BANKS.

We have already indicated the various modes in which the law of 1893 permits of the funds of savings banks, whether ordinary or postal, to be invested. What are the investments actually made by the Deposit and Consignment Bank within the limits laid down by the law?

On December 31st., 1912, the sums to the credit of depositors in the post office savings banks amounted to 1,745,563,726 fr. Of this amount 40,571,671.41 fr. were in current account bearing interest at the Deposit Bank, the remainder being invested in Government stock and in railway bonds.

The property of the post office banks at the same date amounted to 74,658,662.72 fr. and was represented by a capital of 70,839,412.42 fr. in Government stock, real estate to the amount of 1,804,214.88 fr. and capital invested in the building of post offices, amounting to 2,015,035.42 fr.

The following table shows the amount of the personal estate securities in which the deposits and the capital of the Post Office Savings Bank were invested on December 31st., 1912.

TABLE VI. — *Securities belonging to the National Savings Banks.*

Nature of stock	Situation on December 31st., 1912 (in francs)	%
Stock 3 % Unredeemable	1,130,308,678.15	65.4
" Redeemable	269,094,412.89	15.1
Annam and Tonquin Loan	1,468,033.24	0.0
Treasury Bonds Redeemable in 1923	104,216,000.00	5.1
" " " in 1936	247,451,078.40	13.4
" " " at Short Term	18,000,000.00	1.0
Government Railway Bonds	5,293,265.07	0.3
Total	1,775,831,467.75	100.0

Somewhat different results are given by the table showing the distribution of the capital belonging to Private Savings Banks which is largely vested in real estate (28 %), and, to a much less degree than in the case of the postal banks, in Government securities.

TABLE VII. — *Employment of the Capital of Private Savings Banks on December 31st., 1911.*

Nature of Investment	Amount in francs	%
Stock (purchase price)	27,302,735.12	13.71
Real Estate	56,053,487.06	28.14
Government Stock, or Stock Guaranteed by Government	4,093,001.67	2.06
Municipal and Departmental Bonds etc.	8,492,696.04	4.26
Postal Bonds	993,643.02	0.50
Co-operative Dwelling Houses	6,187,950.82	3.11
Plans for Building Cheap Dwelling Houses	4,429,682.01	2.22
Other Local Investments	3,655,596.57	1.83
Current Account in the Deposit and Consignment Bank	87,989,496.88	44.17
Total	199,198,289.19	100.00

From all this it appears that the Deposit and Consignment Bank has availed itself of the power granted by the law to invest deposits in other securities besides Government stock.

This system of investments has been criticised by many French economists who advocate the granting of liberty to every savings bank in regard to the choice of its investments; a liberty which, within wider or narrower limits, exists in some foreign countries, as in Italy, Germany etc.

To the French system many inconveniences are attributed, political, economical and financial.

From a political point of view, it is clear that the savings banks constitute enormous accumulations of capital, whence the State may easily draw funds for public expenses, which, great as they are, may thus be readily increased.

From an economical point of view, it is complained that the Government in a sense drains away capital from all parts of the country, where savings are formed, in order to centralise it in the Deposit and Consignment Banks, and thus to keep it at its own disposal. This does great injury to small commerce, manufactures and agriculture. Eugène Rostand, Vice-president of the Savings Bank of Marseilles, has for a long time carried on a vigorous propaganda and combated on various occasions in favour of the Savings Banks being granted liberty in regard to the investment

of their capital. In an eminently agricultural country like France, such liberty would doubtless give a new impulse to agricultural credit. The writings of Paul Leroy-Beaulieu on the subject of savings-banks are well known.

"Throughout the whole country they ask the lower middle and labouring classes for their savings; the high rate of interest they offer, too high especially in France, prevents any local investment of the savings. The savings banks thus suck up these infinitely small savings from the whole country to convert them into Government stock, that is into idle capital. They thus, to a certain extent, render all the hamlets, villages and small towns unproductive, taking all the germs of capital that may be produced and carrying them off to be swallowed up in the capital to diminish the floating debt and the general liabilities of the Treasury. Imagine the atmosphere absorbing all the moisture produced everywhere and never returning it in fertilizing rain, and you will have a representation of the regime of the savings banks in France."

From a financial point of view, it is stated that the system of the investment of savings in Government stock affects the price of the public funds. In ordinary times the price of stock is raised above its real value, and when a crisis occurs its depreciation is the more serious because the banks are compelled to sell in order to satisfy their creditors.

But these ideas are not shared by all.

The State, certainly, obtains capital through the savings banks more easily and at a cheaper rate than by resorting to the market, and this facilitates the issue of Government bonds.

Is this a good or an evil? To this question there is no general or positive answer. The answer depends on the judgment passed on the public expenditure. And this depends on the persons judging it, the particular country and the special moment of its history. It may, however, be observed that the facility with which the State procures capital from the savings banks is no more to be deplored than is, in the field of private economy, the existence of credit banks supplying the producers with capital, although they also thus facilitate the dissipation of their patrimony by prodigals. In some countries, for instance England, the savings are used to pay off the public debt. In Russia the savings banks are Government institutions, and they have, contributed to promote rural credit through the Peasants' Land Bank and led to the solution of the problem of the means of communication, a matter of the utmost importance for the elevation of the standard of living in Russia. According to some, there is much exaggeration in laying upon the French system of investing savings the blame of giving a false value to Government stock, both in periods of prosperity and of depression. Are not the depositors in the savings banks a special class of capitalists who entrust their money to those institutions which give the surest guarantees? And is not Government stock one of the safest investments? Nor can it be maintained, many are of opinion, that such an investment is not in accordance with the opinions and wishes of depositors seeking an investment

is stated also that though in 1848 and 1870 the State was in serious difficulty and compelled to resort to exceptional measures to satisfy its creditors, yet for the future the so-called *saving clause*, contained in the law of 1818, will obviate any danger to the financial position of the State that might arise from the demands of creditors in times of political and economic crisis. And if the State be secure financially, so also are the depositors, who are sure of receiving the whole of their capital, although in exceptional times payment may be delayed. And in times like those of 1848 and 1870 in France, depositors would be exposed to the risk of loss or suspension of payment even if their savings were invested as in other countries, in mortgages, bonds or other investments.

Prof. Jean Lescure has recently replied to the severe criticisms of Leroy-Ladurie and other partisans of economic liberty in regard to the economic damage resulting from the investments made by savings banks in France. He points out in general from the concentration of capital in the hands of the State, that the State does not impoverish the money market by investing savings in Government stock. One of two things must occur: either the funds of the savings banks will be invested in a Government loan as more frequently happens, the savings banks will purchase Government bonds on the Exchange. In the former case, if the savings banks do not subscribe to the loan, private individuals will. These persons will then find a sum equivalent to the amount of the subscription, and may invest in commerce and manufactures. But in the case of the purchase of Government stock on the Exchange by the savings banks, it may be said, according to Lescure, "that the available capital of the savings banks will pass into the hands of the bankers or capitalists from whom they have purchased the stock." This available capital must necessarily be invested in manufactures or in bank securities, otherwise it will remain unproductive. It will then not be withdrawn from commerce and manufactures, but will simply be converted into Government stock before being invested in commerce or manufactures.

It must not, however, be asserted, Lescure adds, that this obligation on the part of the banks is without consequences. These are seen in the direction given to the savings. *The amount of savings remains the same, but its direction is changed.* In the proportion in which these savings would have been absorbed by local requirements it may be admitted that the obligation to invest savings in Government stock changes the direction of the savings. The seller of Government stock to the Deposit and Comptant Bank may in such a case invest the capital obtained, for example, in the purchase of foreign securities.

Now it must be observed that this possibility of the deviation of capital is the fundamental point in the question of the investments of the savings banks. Even without altering the system of French savings banks, it is clear that the State may in another way reconcile the interests of the Treasury with those of the national production.

The State, even more than any private organisation, may perform a work of great social and economic utility, by acting as intermediary between

the depositors who entrust their money to it at a moderate interest, because they place full confidence only in its banks (such as the post office bank and the producers, the small agriculturists, who need money at a low rate and, sometimes, owing to the concentration of the banking business in a small number of the larger institutions, do not find credit banks adapted to their requirements.

It is just with a view to balancing the growing necessities of public finances and those of production, that legislative and economic practice is following different methods in different countries, notwithstanding the different ways in which the savings banks are organised in them.

In Germany there are no Government savings banks (post office bank and the ordinary banks have above all adhered to the principle of localisation of investments. As shown by statistics published in this *Bulletin* 4,600,000,000 marks (that is 39.58 %) were in 1910 invested in urban mortgages; 2,300,000,000 (19.87 %) in rural mortgages, 2,700,000,000 (23.63 %) in certificates to bearer; 399,000,000 marks (3.45 %) in loans on bills of exchange, pledges, certificates of debts; 1,500,000,000 (13.47 %) in loans to public institutions and in other investments. About 60 % of the capital is thus invested in mortgage loans. Now, the Prussian law of December 23rd., 1912 obliges public savings banks to invest 15 % or 20 % or 25 % of their deposits, according to the greater or less importance of the banks themselves, in bonds to bearer, which offer guarantee sufficient for the investment of minors' capital. Three fifths of the obligations must be represented by German Imperial or Prussian bonds.

This tendency to reconcile, by means of the distribution of investment, the interests of the State with local interests, and of public economy with private, has been pointed out by us in various articles concerning savings banks in different countries, as Prussia, Japan, the United States of America, Switzerland and Bulgaria. There is no need to dwell further on this subject.

(1) *Bulletin of Economic and Social Intelligence*, February, 1913. Mortgage Loans of Prussian Savings Banks and their Influence on the Dismortgaging of Rural Landed Property.

RUSSIA.

I. LOANS GRANTED BY THE STATE BANK ON SECURITY OF GRAIN AND THE ESTABLISHMENT OF GRAIN ELEVATORS IN RUSSIA.

OFFICIAL SOURCES :

RECUEIL DE DONNÉES STATISTIQUES ET ECONOMIQUES SUR L'INDUSTRIE AGRICOLE EN RUSSIE ET DANS LES PAYS ÉTRANGERS (*Collection of Statistical and Economic Data relating to Agricultural Industry in Russia and Foreign Countries*). Sixth Year, St. Petersburg, 1913.

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§ I. INTRODUCTION.

Russia produces a very considerable part of the grain in the world and takes the first place among European grain producing countries. In the period 1901-1910, the average yield of the principal cereals, expressed

in thousands of quintals, was as follows, compared with the corresponding figures for Europe and for the whole world: (1)

	Wheat	Rye	Barley	Oats
Russia in Europe	149,500	205,554	77,114	122,671
" in Asia	16,381	6,593	1,695	10,385
Total	165,881	212,147	78,709	133,057
European Production	459,480	383,477	194,257	345,844
World Production	838,217	397,978	268,487	535,198

The great agricultural reform now taking place in Russia (2), as in the active colonisation of immense areas in Siberia and the intensification of the methods of cultivation will lead to a further great increase in this production.

A very considerable part of the Russian crop has long been exported. In recent years the weight and value exported have been as follows:

Quantity of Russian Grain Exported in the Years 1906-1911.

Year	In Thousands of Pounds (1)				
	Wheat	Rye	Barley	Oats	Total (4)
1906	219,995	65,336	148,810	69,544	590,735
1907	141,674	45,164	132,665	21,137	470,382
1908	89,803	24,910	161,389	29,374	404,930
1909	314,469	35,499	219,202	74,663	761,939
1910	374,590	40,538	244,701	83,947	848,553
1911	240,486	53,873	262,200	85,059	821,657

(1) The Russian Pound = 16 kg. 38,

(2) Including other grains and various kinds of Meal.

(1) These figures are reproduced from the *Annuaire international de statistique agricole* (International Yearbook of Agricultural Statistics), published by the International Institute of Agriculture (Year 1910), Rome, 1912.

(2) See "General Outlines of the New Russian Land Reforms", in the *Bulletin of Economic and Social Intelligence*, November, 1913 and January, 1914.

Value of Russian Grain Exported in the Years 1906-1911.

Year	In Thousands of Roubles (r)				
	Wheat	Rye	Barley	Oats	Total (r)
6	205,686	48,903	100,548	51,471	472,873
7	155,756	44,827	111,363	22,678	431,192
8	113,064	25,999	132,668	24,526	380,302
9	384,336	34,130	165,906	61,763	750,094
0	405,198	29,867	158,521	63,698	747,952
1	258,730	42,556	211,443	73,197	735,171

(1) The rouble = 2.67 frs.

(2) Including other grains and various kinds of Meal.

In view of these figures, it is easy to understand that a good organization of the grain trade is of very great importance for the whole country. Happily, the state of things is very far from being really satisfactory. Up recently it has been above all the dealers and brokers, far more than the farmers, who have profited by the good harvests. By artifice and even by awful means, they have forced the farmers, above all the small farmers, sell their grain at a loss. The unhappy economic situation of the peasants made this possible, for they were obliged to sell immediately after harvest, when the conditions of the market were unfavourable. Consider also the obstructions on the railways and the delays in export by sea, to the speculators accumulating consignments of grain at certain seasons, and finally the too frequent adulteration on the part of unscrupulous dealers.

When the competition of Canadian and Argentine cereals made itself every day to a greater degree on the world's markets, the situation was more and more disadvantageous for the peasant.

Economists and statesmen had long given the matter consideration and the Government had long endeavoured to remedy so lamentable a condition of things by instructing the State Bank to grant loans on the security of grain. In 1910, it was further decided to establish an entire system of *elevators*, a measure of which we shall shortly speak.

§ 2. LOANS GRANTED BY THE STATE BANK ON SECURITY OF GRAIN.

The State Bank was already authorized by the regulations of 1860, to lend on the security of grain, but the formalities to be gone through by the borrowers, were so complicated that, practically, this form of credit could have no development.

It was only twenty years later, in 1885, that credit on the security of grain really came into use. The branches of the Bank were then authorized

to grant it on the following conditions: The borrowers were to deposit their security in the buildings specified by the Bank, which would keep the keys; the loans were granted by the ordinary Discount Commissions, which fixed their amount in accordance not only with the value of the security and the facility of realising it, but also with the confidence that the borrower inspired.

The rate of interest was not to exceed the ordinary rate of discount. The latter was still too much for the peasants to pay; so the development of the institution proceeded very slowly.

In 1893 the abundant harvest brought into prominence the question of the reorganization of credit on security of grain and the Minister of Finance took measures, which, at first provisional, became definite in the following year, after they had undergone certain modifications suggested by experience.

The formalities in connection with the loans were at first considerably simplified; the borrower was able himself to keep the grain given as security or deposit it with the various State functionaries or in the buildings of the "artelles", co-operative or other societies etc. The maximum amount of the loan was fixed, according to circumstances, at from 60 to 75 % of the value of the security. The loans had to be repaid in instalments within a maximum period of nine months, the interest varying from $4\frac{1}{2}$ to 6 %. Not only threshed grain but even grain not threshed and other agricultural produce was accepted as security. The amount of the loans was paid by the local treasury offices, or even sent through the post.

The result of so liberal a reform was a considerable increase in the number of loans on the security of grain. From 1885 to 1892 the amount of these loans was only 19,600,000 roubles; for the year 1893 alone it was 29,600,000 roubles, increasing to 50,900,000 roubles in 1894 and to 62,300,000 roubles in 1895.

However, since 1896, the State Bank has thought fit to order its branches to exercise the greatest prudence in the grant of loans to farmers retaining possession of their security. On the other hand, the term for repayment was reduced to six months, with a possible extension of two months in certain special cases.

On account of these restrictions, the amount of the loans decreased: in 1896 to 37,500,000 roubles; and in 1898 to 36,100,000 roubles.

The conditions for the loans on security of grain have scarcely varied since then, but, in recent years, the Government has made great efforts to develop the loan business through the medium of the zemstvos, co-operative credit societies, private credit institutions and railways, considerably reducing the rates for loans for them. Thus, in August, 1893, the rate was fixed at 6 % for direct borrowers and at $5\frac{1}{2}$ % for intermediaries.

The State Bank being in the first place a central Bank of Issue, the decrease of its direct loans was exceedingly desirable.

Various other steps have been taken to diminish the cost of the custody of the security; the borrowers have especially received considerable facil-

for depositing their securities with various functionaries or with the *zavos*; new agencies of the Bank have been opened; above all, elevators have been established, a subject to which we shall return to deal with it *tail*.

Besides the loans granted on security of agricultural produce properly called, the State Bank, after various attempts, in 1899 installed a *ce* for agricultural credit on duplicates of railway way bills. These are exclusively reserved for persons regularly occupied in the grain *tail*. They are given in the form of a bill at six weeks' date at most their amount may not exceed 80 % of the value of the security.

The following table shows the development of credit on security of *tail* in Russia. We shall see that after the depression of 1896-1899, already *tail*, these loans again began to increase, owing to the measures taken by *tail* government.

*ans on Security of Agricultural Produce Granted by the State Bank
between 1885 and 1911, in Millions of Roubles.*

Year	Loans on Security of Agricultural Produce Strictly so called			Loans Granted on Duplicates of Railway Waybills	Total
	By the Bank and its Branches	Through Credit Institutions, <i>Zemstvo</i> s, etc.	Through the Railways		
1892	19.4	—	—	0.2	19.6
.	13.0	13.9	2.7	—	29.6
.	34.6	8.2	8.1	—	50.9
.	50.0	2.9	9.4	—	62.3
.	28.1	3.7	6.8	—	38.6
.	26.1	0.5	10.9	—	37.5
.	22.6	0.5	13.0	—	36.1
.	23.8	0.3	15.5	3.0	42.6
.	28.4	0.9	20.0	20.5	69.8
.	36.5	1.9	34.8	24.6	97.8
.	35.8	2.4	27.3	21.3	86.8
.	42.4	7.1	25.3	23.9	98.7
.	45.7	4.2	22.9	32.7	105.5
.	45.7	6.2	21.9	35.6	109.4
.	47.3	8.8	16.1	34.0	106.2
.	41.0	21.1	14.9	43.9	120.9
.	49.2	11.8	13.0	44.2	118.2
.	71.1	15.2	10.2	40.0	136.5
.	104.3	39.7	7.3	59.1	210.4
.	122.7	72.5	9.8	63.4	268.4

The amount of the loans on security of corn granted by the State Bank does not only show an absolute increase, but a more rapid increase than the other forms of credit allowed by the Bank. In 1908, it only formed 5.7 % of the amount of loan and discount business done by the Bank; the proportion increased to 6.9 % in 1909; 12.4 % in 1910 and 13 % in 1911.

The good results attained by the efforts of the Government to develop credit by means of intermediary institutions is seen clearly in the above figures. No commentary is necessary in regard to them.

We cannot give the details of all the business done by the intermediary institutions; at the most we can say a few words in regard to the operations of the most important, the railways and the popular credit institutions.

The credit operations conducted by the railways on the security of grain date from as far back as 1888, when the Government, in order to regulate the carriage of grain and save the farmers from a fatal dependence on local dealers, authorized the railways to grant loans on security of the grain carried, on their own responsibility and out of their own funds.

The loans increased in number considerably in the following years: in 1893 the State Bank came forward to assist with its credit; in 1894 an Imperial Order was issued for the special regulation of this form of credit.

Between 1895 and 1908 the railways were the principal intermediaries in the matter of these loans. They also established several elevators and storehouses for the agricultural produce pledged. In recent years, other intermediaries have somewhat modified the special position occupied by the railway as credit institutions. Unfortunately, we have no figures later than 1905, when the credit granted by the railways amounted to 56,988,000 roubles.

Since 1903, credit on the security of grain has been given by the credit co-operative societies, and, since 1906, by the loan and savings co-operative societies. These various institutions give credit on current account, but the lack of storehouses has considerably hampered their action. Nevertheless, on January 1st., 1913, 1,478 credit co-operative societies opened a credit on the security of grain of 18,850,000 roubles of which 6,180,000 roubles were actually advanced. The corresponding amounts in the case of 166 loan and savings co-operative societies, in the same year, were 2,590,000 roubles and 1,009,700 roubles.

* *

The decree of 1894 was issued with the idea that the loans would be chiefly granted to producers; experience has not confirmed this expectation.

Let us first of all consider the credit directly granted by the State Bank. Since 1896, the loans to dealers have been the most important and it is only since 1909 that the percentage of loans to producers has increased somewhat, without doubt owing to the scheme for the foundation of a State Bank then prepared.

With regard to the loans granted by intermediaries, let us first state that, from 1897 to 1899, the benefit of these loans was reserved for producers, but since 1900, the year in which the provision to that effect was suppressed, the loans to dealers have increased continually. We shall give more detailed statistics on the matter in the following table. We add that much is expected from the establishment of the co-operative or State Bank *elevators* in the direction of reducing the proportions in favour of the producers.

Finally, the credit granted through the medium of the railways has exclusively benefited the dealers. The producers only received 0.8 % in 1903; 1 % in 1904 and 0.3 % in 1905. The development of new forms of credit has not therefore liberated the peasants from their strict dependence on intermediaries and speculators.

Percentage of Loans Granted to the Various Groups of Borrowers.

Years	By the State Bank and its Branches			Through the Medium of the Credit Institutions, Zemstvos etc.		
	To Rural Landholders	To Peasants	To Dealers	To Rural Landholders	To Peasants	To Dealers
1897	36.1	20.9	43.0	35.9	3.5	60.6
1898	15.3	31.0	53.7	17.1	28.0	54.9
1899	41.9	10.2	47.9	27.6	41.4	31.0
1900	27.9	3.1	69.2	5.4	10.8	83.8
1901	25.8	2.4	71.8	40.0	60.0	—
1902	22.9	1.9	75.2	60.0	40.0	—
1903	18.0	2.1	79.9	33.3	66.7	—
1904	13.4	1.4	85.2	33.3	22.2	44.5
1905	11.0	1.4	86.8	42.1	21.0	36.9
1906	14.1	1.3	84.6	12.5	12.5	75.0
1907	15.5	1.0	83.5	5.6	9.8	84.6
1908	16.5	1.1	82.4	9.5	14.3	76.2
1909	14.6	0.9	84.5	8.0	8.0	84.0
1910	9.8	0.9	89.3	3.4	1.1	95.5
1911	7.2	0.3	92.5	0.9	0.4	98.7
1912	9.4	0.4	90.2	1.7	0.9	97.4
1913	19.1	1.9	79.0	2.6	2.6	94.8
1914	18.3	1.9	79.8	—	—	—
1915	17.3	1.9	80.8	—	—	—

We give below a few figures showing what kinds of produce were accepted in security for loans by the State Bank and in what proportion:

*Agricultural Produce Accepted as Security by the State Bank
(in thousands of Pounds) in 1907-1911.*

Kind of Produce	1907	1908	1909	1910	1911
Wheat	22,590	25,331	50,577	95,318	131,86
Rye	8,561	8,895	10,849	35,819	30,98
Oats	5,143	5,202	14,151	21,475	43,99
Barley	4,254	6,410	12,630	24,842	40,22
Maize	1,535	943	933	1,777	6,69
Oleaginous Grains	6,147	5,078	4,869	7,207	15,4
Flour	1,974	4,580	5,146	9,596	28
Potatoes	8,826	9,992	20,429	41,142	34
Buckwheat	—	—	—	—	2
Pease	—	—	—	—	3
Millet	—	—	—	—	2
Cotton	188	263	181	148	21
Flax	—	—	—	—	1,1
Tobacco	219	202	166	234	3
Wines (Thousands of Vedros) (1)	—	—	—	—	3
Spirits of Wine (Thousands of Vedros)	—	—	—	—	7
Timber for Building Purposes (in thousands of Beams or Planks)	—	—	—	—	58

(1) 1 Vedro = 12, 29894 litres.

In the three years 1909, 1910, 1911, about 6 % of the total production of the four chief kinds of cereals was given to the State Bank in security loans. In his Budget speech for 1913, the Minister of Finance did not fail to observe that the moral importance of this fact far exceeds its material importance, for the possibility of the producers obtaining such loans itself suffices to assure them of more remunerative conditions of sale.

§ 3. STATE BANK "ELEVATORS.

The establishment of elevators was first spoken of in the middle of the last century but the proposal was not followed up. Later on, in 1883, the Government charged a Commission to determine the measures to be taken in connection with the fall in price of corn, and this Commission pronounced itself in favour of storehouses of this kind. It saw in them a means of bringing the producers into more direct relation with the market and of

ing the cost of transport. Elevators were to be established in the principal centres of production not for purposes of gain, but in the first place to serve the interests of the grain farmers.

These proposals were approved by the Pan-Russian Assembly of Commerce and Industry at Nijni-Novgorod in 1896, and by a Government Commission in 1899; unfortunately, the war with Japan and the serious internal disorders following it delayed their being acted on.

In 1909 and 1910 the abundant harvests again brought the problem of security of grain into special prominence. The lack of houses was in fact one of the most serious obstacles to the extension of this mode of credit, which the elevators established by the railway department or by private initiative only met in a very insufficient degree. In November, 1910, the Government resolved on the establishment of a system of State elevators, including 178 of them.

The State Bank entrusted with the carrying out of the programme by deciding on the construction before 1916 of 84 elevators of a total capacity of 58,800,000 pouds. An amount of roubles was deducted from the profits of the Bank and set apart for this construction.

The General Management of the business of the elevators is under the supervision of the Department of Finance and entrusted to an Elevators' Committee and the Board of the Bank. The Committee, consisting of the President and some high officials of the Bank, with whom associated experts and, in some special cases, various other persons, prepare the estimates, establishes the rate of loans, examines the local proposals for the classification of grain and decides several other matters; however, the final decision on most points is reserved to the Board of the Bank.

The regions of production have been divided into districts in which the technical management is entrusted to a *Local Committee* composed of the President and the Inspector of the Branch Bank, *Grain Inspectors* (specialists for the examination and classification of grain) and, when certain special matters are dealt with, some other persons.

The *Local Committee*, with which are associated the representatives of the zemstvos, the municipalities, the commercial exchanges and agricultural organizations, forms the *Advisory Commission* of the district.

The *Advisory Commission*, which is intended for an office of public supervision of the elevators, gives its opinion year by year on the rate for the loans, the conditions to be followed in classifying the grain and the degree of humidity or impurity that may be tolerated. It fixes the normal type of the grain in accordance with samples obtained from the local markets and examines complaints in regard to the classification made by the grain elevators.

In charge of each elevator there is a superintendent assisted by grain inspectors.

Not less than 25 pouds may be stored, nor less than 1,000 pouds, or at a railway truck load, if the grain is to be kept separate. The inspector may demand that his grain be cleaned.

On the warrant delivered by the elevator there is indicated the quantity stored, its quality, colour, the degree of humidity and impurity and the place of production. These warrants facilitate credit in a remarkable degree, by means of the precise indications contained in them, and the Bank does not hesitate to lend up to 80 % of the value of the grain deposited in an elevator. Let us add that the warrant helps to increase the number of sales by correspondence or even by telegram, which greatly contributes to the uniformity of rates throughout the country.

A commencement has been made with the provision of elevators in the Governments of the South East, which are the most important grain producing districts in Russia. In the beginning of 1913, the four following elevators began work.

Elevator of Grasiĭ	Government of Tambov	1,700,000 pounds
» » Abdoulino	» » Samara	700,000 »
» » Valuiki	» » »	500,000 »
» » Tol kai	» » Voronezh	300,000 »

The cost of construction of these elevators was respectively 926,600 463,000, 293,400 and 229,400 roubles.

According to the Torgovo Promychnaia Gaseta (No. 178, of August 4th./17th., 1913), the 8 following elevators were to have been opened at the beginning of this year.

Elevator of		Capacity
Liski	Government of Voronezh	500,000 pounds
» » Talovaja	» » »	500,000 »
» » Millerovo	Territory of the Don Cossacks	600,000 »
» » Neprik	Government of Samara	300,000 »
» » Sorotchinskaja	» » »	700,000 »
» » Bogatoe	» » »	300,000 »
» » Ekaterinovka	» » Saratov	500,000 »
» » Torbjeevo	» » Tambov	500,000 »

The Grasiĭ elevator may be mentioned as a model of its kind. It is of quite special importance, as 30,000,000 pounds of cereals pass through the station of Grasiĭ annually. It is built on the American system in reinforced concrete and wood, and contains 190 silos. The grain is emptied automatically from the trucks into receptacles whence, automatic lifts raise it to the higher storeys, where it is cleaned and classified. It then falls back, of its own weight, to the lower storeys, where it is weighed and stored. As the working day has ten hours, the Grasiĭ elevator can unload 160 trucks of 1,000 pounds each per day.

2. PUBLICATIONS OF RECENT DATE RELATING TO CREDIT IN RUSSIA.

DES (Pierre) Une Banque d'Etat pour le crédit local en Russie (*A State Bank for Local Credit in Russia*). Extract from the Revue de Science et de Législation Financières. No. 1. Jan.-Feb.-March, Paris, 1913.

OF THE LAND BANK OF THE NOBLES IN 1912 (In Russian). In the "Viestnik Finansov, Promyshlennosti i Torgovli", December 2nd., 1913. St. Petersburg.

OF THE LONG TERM CREDIT INSTITUTIONS IN THE EARLY PART OF THE YEAR 1913 (In Russian). In the "Viestnik Finansov, Promyshlennosti i Torgovli". December 14th., 1913. St. Petersburg.

OF THE RUSSIAN GOVERNMENT PAWN ESTABLISHMENTS, Special Bureau of the Credit Department. (In Russian). St. Petersburg, 1913.

SKY (A. B.): Improvement Credit and its Requirements (In Russian). In the "Viestnik Finansov, Promyshlennosti i Torgovli". December 7th., and 14th., 1913, St. Petersburg.

Part IV: Miscellaneous

ALGERIA.

ORGANIZATION OF AN AGRICULTURAL STUDY AND EXPERIMENT SERVICE.

OFFICIAL SOURCE.

GOVERNMENT GENERAL OF ALGERIA. DEPARTMENT OF AGRICULTURE, COMMERCE AND COLONIZATION: Organisation d'un Service d'Etudes, de Recherches, d'Experimentation et de Vulgarisation agricoles en Algérie (*Organization of a Service of Agricultural Study Research, Experiment and Publication in Algeria*).

In regions where even the tradition of agriculture has been lost, it is enough to facilitate the acquisition of land for the colonists and to ensure in the tranquillity necessary for their labours; it is necessary also to aid them in their efforts, or at least to obtain for them the precise and certain information only the State can obtain, with the least delay, by means of research, studies and experiments methodically conducted in the whole country by qualified technical persons.

It must be the care of the Government to provide the colonist with information as exact as can be attained, humanly speaking, with regard to the conditions under which agriculture can be carried on, so as to permit of adaptation to them as far as possible. The more perfect this adaptation, the more nature will assist their individual efforts, and the more abundant will be the harvest and the greater the profits.

It is necessary to know what animals, what plants, what agricultural methods are to be recommended. This is a work of research and experiment that cannot be left to the scattered efforts of the colonists; that would expose them to serious risks and endless possibilities of demoralising defeat.

Sometimes, success under these conditions may have its drawbacks; the success obtained in certain crops by a man of experience or one specially favoured by chance in his empirical investigations, may lead, in an environment where the struggle is hard and doubtful, to an irresistible enthusiasm and an extravagant infatuation for this crop. It extends at once rapidly, often even at the expense of other crops it would be possible to grow at a profit. The country is then exposed to all the risks due to the cultivation of a single crop which may disturb its financial and economic balance.

These considerations have led the Government of Algeria to bestow on the colony an information service and to organize a centre of agricultural study, research and experiment. For this purpose, it proposes the creation of separate technical departments as so many instruments suited for special work, in order to apply them respectively to each branch of the problem which may thus be solved in all its parts.

There will be four groups of these departments:

1st. The meteorological group will consist of a meteorological department to study the relation of the meteorological phenomena to agriculture, a matter of great importance in a country where the crop depends chiefly on the rainfall;

2nd. The soils group, which will consist of a geological department, occupied with the physical formation of the soil and the search for underground water and an agronomical department concerning itself with everything relating to the preparation of the soil and the implements required for the purpose.

3rd. The plants group, which will include a botanical department for discovery, collection and study of all the varieties of plants that may be of importance for Algeria, a phytopathological department to deal with the subject of cryptogamic diseases of cultivated plants and an entomological department for the search for means for the destruction of noxious insects and the utilisation of useful insects.

4th. The animals group, which will include a livestock improvement department to study the manifold matters connected with the improvement and development of animal production, a Pasteur Institute for the study of infectious cattle diseases and the means of combating them, as a technical sea fisheries and agricultural department to seek out means for the proper exploitation of the Algerian coast.

Experimental farms will be founded in various parts of the colony to study the means for utilizing for practical Algerian farming and thus place at the disposal of the colonists, either the discoveries made in the laboratories of these technical departments or the results already obtained in other countries. The Department of Agriculture is already providing for the establishment of such experimental farms at Sidi-bel-Abbès, Sétif, Sousse and Batna for extensive cultivation and for cattle foods, at Orléansville for the cultivation of olives and in Kabylia for that of the fig and olive trees.

Side by side with the technical departments, there will be one for economic and social institutions, which will have an important part to play. It will study everything relating to the organization of short term mutual credit

which has already made progress in the Colony, and that of long term mutual credit, shortly to be introduced. It will occupy itself with technical questions relating to the work of syndicates, agricultural *comices* and co-operative nursery gardens. It may even serve to advise the Government on all matters in connection with the organization of cheap dwelling societies which have already made good progress in the Colony. On the other hand, as mutual institutions have no chance of developing except on soil specially selected or at least prepared for them, it will be the part of this department to make known to the populations, both native and European, the possibilities of co-operation and to open their minds to the advantages of mutuality. Finally, it must collect, in conjunction with the Algerian Office at Paris, with which it must be in constant contact, all information that may be of interest to the farmer with regard to national and foreign production, the needs of the markets, the organization of sales and the search for the most profitable markets.

The Department of Agriculture will start all these departments and arrange for the co-ordination of their work. To keep in regular contact with the farmers whom it is intended to help, it asks for the assistance of the Superior Board of Agriculture on which both the heads of Government departments, for which agricultural questions have an interest and the representatives of the farmers of all the regions of Algeria should have seats. This Board should meet regularly, the technical departments should send it report of their years' work and it should give its opinion as to the work to be undertaken in the following year.

Such is the programme of the Agricultural Department in regard to agricultural experiments in Algeria. When this organization is realised, it will be a remarkable implement by the use of which the colony may be able to make rapid progress.

BELGIUM.

I. THE "MODERN VILLAGE" AT THE GHENT UNIVERSAL EXHIBITION.

SOURCE.

LE VILLAGE MODERNE A L'EXPOSITION UNIVERSELLE ET INTERNATIONALE DE GAND 1913. Evolution agricole - Esthétique rurale - Fermes - Edifices - Pavillons - Jardins - Laiterie rurale - Bibliographie - Notes, comptes rendus, vues et plans (*The Modern Village at Ghent Universal Exhibition, 1913 - Agricultural Progress - Rural Esthetics - Farms - Buildings - Pavilions - Gardens - The Farmer's - Family - Bibliography - Notes, Reports, Views and Plans*), Edited by the Committee of Studies for the "Modern Village", under direction of M. PAUL DE VUYST, General Manager at the Department of Agriculture and Public Works, with Preface by M. EMILE TIBBAUT, Member of the Chamber of Representatives and President of the Superior Board of Agriculture, Brussels. Comptoir de l'Imprimerie de la Couronne, 1913.

In connection with the Tenth International Congress of Agriculture which was held at Ghent from the 8th. to the 13th. of last June, in which the most important problems now under consideration in the world of science and agricultural economy were dealt with (1), as we know, there was also a "Universal Exhibition", which, as very many States took part in contributing rich exhibits of their industrial and agricultural produce, was equally interesting and instructive. But perhaps the most original and suggestive part of it, which will leave an indelible impression on the minds of the visitors, as it was especially capable of arousing ideas, and favouring study and enterprise among those who have the destinies of agriculture at heart, was the "Modern Village". What is to be understood by this? What was its origin and the intention in the mind of its organizers? We shall briefly explain. A special publication, issued in illustration and to record the happy innovation, by M. de Vuyst, with whom the idea originated, gives us an opportunity.

I. THE "MODERN VILLAGE" AND ITS OBJECT.

The depopulation of the country districts is recognised to-day as one of the most serious problems of agricultural economics. The phenomenon is more or less apparent in almost every country of Europe as well as in

(1) See *Bulletin of Economic and Social Intelligence*, December, 1913. pp. 93 et seq.

Belgium, and everywhere it is arousing serious anxiety and is the subject of Government studies, enquiries and provisions.

Much has been written about its causes, which are certainly complex, but one of the chief seems to be the want, as a rule, in the country, of the conditions necessary for life, whether material or moral. And, indeed, the want of houses, the bad state of the roads, the scarcity of water, the deficient state of the public services, especially as regards sanitation, the difficulties in the way of communication with inhabited centres etc., are all facts that certainly do not render country life agreeable and that, together with strictly economic causes, often occasion the exodus of agricultural labourers. These, who form the most numerous agricultural class, find in the cities not merely higher wages, but better organized assistance and together a more comfortable and happier life.

"It is not enough", writes M. Tibbaut, whose knowledge of the subject of rural exodus is well known, in the preface to the volume mentioned above, to improve the systems of cultivation and livestock improvement, but we must also give the farmer a possibility of a life better adapted to the requirements of human dignity and such as may raise his profession in the eyes of the public and in his own."

The rural exodus, continues our author, which is assuming such disquieting proportions, is not exclusively due to the attraction of the high wages paid by industry, but also to the fascination of the cities with their frequent deceptions. To improve rural life by means of more diligent attention to the house, sanitation, modern comforts and even good taste, will be to elevate the farmer and confer a greater power of resistance on a country which forms the great storehouse of human energy.

The rural house is, without doubt, of capital importance for agriculture and it is for the housewives to see to its furnishing, to give it a pleasant appearance and make it an agreeable dwelling place.

But the task of the housewives — observes M. Tibbaut — has been often ignored and it is M. de Vuyst's merit to have brought it into relief.

When, he writes, the housewife is suitably equipped for her economic position, in the family and in society; when, with her instinct for cleanliness and good taste, she knows how to make the dwelling attractive; when she puts in practice elementary ideas of domestic economy and good nourishment, so as to ensure the men the restoration of their strength and the necessary repose; when she is fitted to supervise the cultivation of the kitchen garden, to manage the dairy, and to superintend the field labour; when she radiates to her wifely and motherly affection, drawing hearts to her and gladdening them, and protecting others against outside dangers and disappointments; when, finally, she is equal to her task, the housewife brightens the farmers' life, enhances its dignity, increases his power of production, and makes herself a life-giving centre for many farming households, endowed with strength and courage, without which a country, can make no progress.

In accordance with the above idea, M. De Vuyst, with the support of the Government and the assistance of a select group of persons, to whom Belgian agriculture owes much, amongst whom we shall mention, in addition

to M. Tibbaut, MM. Maenhaut and Mélotte, profited by the opportunity given by the Exhibition to realise an idea of his : namely that of the construction of a model village, with many farms of every size, and good roads lined with trees, and all the necessary buildings for public and private life, suitably arranged and furnished both externally and internally, affording a typical example of the way in which modern villages should be laid out.

The undertaking was not easy; indeed, in order to arrange the thousand articles required by the farmer in his work, and in his family and social life, in a practical and interesting manner, a group of suitable buildings was necessary, providing in themselves a precious lesson both in the best arrangement of the village, and in rural esthetics and comfort.

The organization of the village was, however, presided over by a special committee of studies which carried out the plan in its most minute details. The village was thus constructed on an area of 35,000 square metres and included the following groups of buildings :

1. *The Model Farms.* — These formed the principal and most characteristic part of the village ; there were three of them that deserve mention : first of all, the large *Committee Farm*, of great size, comfortable, well ventilated and lighted, built according to the instructions of M. de Vuyst, and meant to give the public an idea of how to arrange the various farm buildings so as to allow of the greatest economy in regard to labour and the greatest facility in supervising the work. The buildings, united in one immense construction, consisted of a great central corridor, with, on the right, the stables, cowhouses, pigsty and poultry yard, and, on the left, the dwelling house, storehouses, hayloft and barns. In the dwelling house there was an office, necessary for the large correspondence and the bookkeeping, a dining room, bed rooms, a large kitchen, a laundry, cellars, dairy etc. The provincial committees of the Farmwomen's Clubs of East Flanders, Hainaut and Namur had provided part of the furniture of the house, which was also well supplied with electric machinery for the various kinds of farm work.

For comparison with this large farm, there was another of medium size on the Flemish model, called the *Ferme Moreels*, covering about 15 ha and fitted up by the domestic economy school, in accordance with the rule of their art. It was built in such a way as to allow the farmer to subdivide part of the house in summer, in case his own family were not too large. It had an entrance hall, a kitchen whence the mistress could supervise the hand at work in the cow houses, the dairy etc., an office, a dining room, bedrooms etc. The dairy was supplied with all the necessary equipment for treating the milk, on the most improved system.

Opposite this edifice was a moveable structure intended for an itinerant school of domestic economy.

And of course there was also a model of a small farm, of simpler style and fewer rooms, but all furnished with elegance and taste.

A detailed examination of the buildings and their contents was a source of agreeable surprises and provided valuable information and instruction. Thus, on the model farm there could not only be seen perfect buildings, but also the farm family itself, in the bright and clean dwelling, where none

the most modern appliances was wanting, as well as the cattle in their stalls and machinery of every kind moved by electricity, every thing in its proper place.

2. *The Buildings and Public Services of the Village.* — There was a second important group of buildings of which it suffices to mention: the Church, the town hall, the rooms of which were utilised for the exhibitions of the General Management of Agriculture, the Rural Office and the Management of Horticulture; the schools, the farmers' library, the post, telegraph and telephone office, offices for the regulation of buildings, for the railways, sanitation, electric light, fire brigade etc.

Thus all the public services necessary for a modern village were taken into account.

3. *Various Buildings.* — Amongst these, in addition to the mayor's house, the village inn etc., especially noticeable were the houses of the horticulturist, the gardener, the beekeeper and above all the *Melotte Dairy*. This latter was equipped in quite modern style.

The interest excited by it is easily understood when we reflect that dairying is quite the most important and most ancient of the Belgian rural domestic industries. Today, as we learn from the publication under consideration, more than half the total cultivated area is planted with cattle foods. The number of cows also is increasing.

The trade in milk and dairy produce is considerable: these articles are generally sold for cash, thus causing a rapid and lucrative circulation of money.

Farmers in the neighbourhood of inhabited centres make a considerable profit from the sale of milk as such. In some districts it is also used for feeding and fattening calves.

The manufacture of cheese is not very widespread in Belgium. Most of the milk is utilised instead for making butter.

According to recent statistics, there are about 1,000,000 dairy cows in the country; and if we take 3,000 litres as the annual yield of a cow, the 300,000,000 litres thus obtained are utilised in the following proportions:

for Cheese Making	litres	50,000,000
" Rearing Calves	"	124,000,000
" Fattening Calves	"	120,000,000
" Human Consumption	"	540,000,000
" Butter Making	"	2,166,000,000
Total		litres 3,000,000,000

As the quantity of butter is not sufficient for the consumption, an amount of 51,000,000 kg. is imported. About 2,000,000 kg. are exported.

In Belgium the butter is generally made on the farm, which is supplied for the purpose with a cream separator and the necessary implements.

Some is, however, made in the co-operative and industrial dairies, which there are about 600, and which may be classified under the two following heads:

(a) the central dairy, collecting the previous evening's and the morning milk from the different farms, and separating the cream in a special chamber for the manufacture of the butter, after which the separated milk is returned to the respective owners.

(b) the regional dairy, a form exclusively adopted in the province of Luxembourg, with local divisions for the work of separation, and a central dairy.

Each division has a chamber for the separation of the cream, provided with the necessary apparatus for weighing the milk, sampling etc.

Three times a day the farmers of the division bring their milk, immediately after the milking. The cream is separated, and the milk taken back to the owners themselves.

The central dairy not only undertakes the making but also the sale of the butter.

The Melotte dairy exhibited represented an intermediate type between the above regional dairy and the private farm. Substantially, it gets rid of the local separating divisions, and keeps the necessary apparatus for each operation on the different farms. Its motor car fetches the cream from these and brings it to the central dairy.

The group of *agricultural labourers' houses* at the Exhibition was also interesting and suggestive.

One of these was exhibited by the limited liability society, "Eig Heerd is good Weerd" of Ghent for the provision of cheap credit to labourers for house purchase. It was surrounded by 500 square metres of garden land arranged and exhibited by the *Ligue du Coin de terre et du Foyer insaisissable*, of which the Minister of State, M. Auguste Beernaert, the great Belgian philanthropist and sociologist, is President. The work of the society is modest and certainly it does not claim to remedy all the evils in the world but it is good and salutary and is associated with those principles of Christian solidarity and moral regeneration which will, to a continually greater extent, govern the future. It is well, therefore, that the labourer should love the land, to which his life belongs and where human labour is associated with the eternal creative force.

The object of the *Belgian Homestead League* is precisely to provide the labourer with a house and garden, an important matter in Belgium, which, while small in area, is extremely populous and well supplied with the means of production, and to make it easy for the thrifty workman to become proprietor of the house he inhabits.

Belgium, as we know, is the country in which the consumption of chemical manure is greatest in proportion to the area. There small farms are extremely common and the comfort derived from the advanced state of agriculture very widespread, which makes one think of the truth of another

he maxims affixed to one of the many buildings of the interesting agricultural exhibition: "It is not only corn the ploughed land produces, but entire civilization."

§ 2. THE NATIONAL COMMISSION FOR THE IMPROVEMENT
OF AGRICULTURAL LIFE.

The Organizing Committee of the Modern Village described above, wish to leave a durable record of its work, decided, on the proposal of M. de St., on August 3rd., 1913, to appoint a Commission to carry on a continuous propaganda for the improvement of rural life.

It was to have a central office and provincial committees. The central office would be charged to study the proposals, to centralise the labour, to furnish the necessary information and to assist the various committees in their work. These latter would be entrusted with the improvement of the villages of their respective provinces, while, however, always preserving their original aspect and characteristics.

This Commission was, in fact, formed in accordance with the following programme: "of providing for the improvement of field life and the embellishment of the villages, in every way suggested by the circumstances especially by means of studies, search for documents in relation to the matter, opinions and councils for those concerned, publications, shows, exhibitions and congresses."

In accordance with its rules, it was composed of effective and honorary members and may be divided into provincial sections. Its business is administered by a president, three vice presidents, a secretary and a treasurer. It derives the funds for its working from subsidies, gratuities and voluntary contributions of its members.

Its Central Office, meeting on October 7th., 1913., decided to organize a large congress for the discussion of the more important problems in connection with the welfare of the country districts.

The subjects on the agenda, mentioned in the publication we are considering, constitute a large and interesting programme of work for the Commission itself. They are grouped in four divisions, that is: 1. General Matters: 2. Matters relating to the Public Services in the Country: 3. Embellishment of Villages: 4. General Improvement of Country Life.

Among the items included under the first head are: Importance and value of agriculture in the general economy of the country, Encouragements granted by the public authorities to agriculture, industry and commerce; Comparison between the advantages so granted in large and small centres; Activity of the societies for the building of agricultural labourers' houses, etc.

Among the subjects included under the second head are those relating to the railways, roads, posts, telegraphs and telephones, lighting, public health, benevolence etc.

The subjects coming under the third head relate to the problem of rural esthetics with regard to peasants' houses, public buildings, road making, gardens and villas, mode of dress etc.

Finally, the subjects coming under the fourth head relate to various matters, such as the food of the peasants, the way to reduce the number of labourers, small rural industries, elementary and professional education as a means of inspiring affection for the land, agricultural libraries, family life, the manner of promoting the progress of associations as well as the complex problem of the relations between labourers and masters.

In these subjects indeed we have a summary of the movement of ideas now evolving in the field of Belgian agricultural economy, which has found its most effectual and happiest expression in the "Modern Village."

2. PUBLICATIONS OF RECENT DATE RELATING TO AGRICULTURAL ECONOMY IN BELGIUM.

(a) OFFICIAL PUBLICATIONS:

COMMISSION DE LA MISE EN VALEUR DES TERRES INCULTES (*Commission for the Cultivation of Waste Land*): Rapport General (*General Report*). Department of Agriculture and Public Works. Rural Office. Reports and Communications. No. 6. Brussels, M. Weissenbruch, 1913.

BAREEL (M.): Propriétés particulières maintenues incultes. Taxe. Expropriation. (*Uncultivated Private Landed Property. Taxation. Expropriation*). In "Rapports et Communications" No. 6. Published by the Department of Agriculture and Public Works. Rural Office. Brussels. M. Weissenbruch, 1913.

CARON (L.): Encouragements à donner aux petits cultivateurs pour les engager à mettre les terres incultes en valeur. (*Encouragements to be Given to Small Farmers to Cultivate Waste Land*). In "Rapports et Communications", No. 6, published by the Department of Agriculture and Public Works. Rural Office. Brussels. M. Weissenbruch, 1913.

LONCHAY (G.): Defrichement des terres communales incultes (*Clearing of Communal Waste Land*). In the "Rapports et Communications", No. 6, published by the Department of Agriculture and Public Works. Rural Office. Brussels. M. Weissenbruch, 1913.

VERHAEGEN (P.): Encouragements à donner à l'initiative pour la mise en valeur des terres incultes (*Encouragements to be Given to Private Initiative for Cultivation of Waste Land*). In "Rapports et Communications", No. 6, published by the Department of Agriculture and Public Works. Rural Office. Brussels. M. Weissenbruch, 1913.

(b) OTHER PUBLICATIONS:

BOUCHÉ (B.): Les ouvriers agricoles en Belgique (*Agricultural Labourers in Belgium*). Published by Misch and Thron. Brussels and Leipzig, 1913.

- VISSCHER (CH.): Le contrat collectif de travail (*Collective Labour Contract*). La Revue Générale, January, 1914. No. 1. Brussels.
- VILLAGE MODERNE A L'EXPOSITION UNIVERSELLE ET INTERNATIONALE DE GAND, 1913. Notes, Comptes rendus, Vues et Plans. (*The Modern Village at the Universal and International Exhibition of Ghent, 1913. Notes, Reports, Views and Plans*). Published by the Studies Committee of the "Modern Village", under the direction of M. Paul de Vuyst, Inspector in chief in the Department of Agriculture and Public Works. Preface by M. Emile Tiffaut, Member of the Chamber of Representatives and President of the Superior Council of Agriculture. Goemaere, Printer to the King. Brussels, 1913.
- DES SUR LA BELGIQUE (*Studies on Belgium*). Lectures delivered in the sixth International Commercial Expansion Course, organized at the Antwerp Superior Commercial Institute, from July 22nd. to August 10th., 1914, under the Auspices of the International Society for the Development of Commercial Education. Published by Misch and Thron. Brussels and Leipzig, 1913.

CHILE.

THE LAND QUESTION AND COLONISATION IN CHILE.

OFFICIAL SOURCES :

- CENSO DE LA REPÚBLICA DE CHILE LEVANTADO EL 28 NOVIEMBRE DE 1907. (*Census Return of the Republic of Chile for November 28th., 1907*). Santiago de Chile, "Sociedad Imprenta, Litografía Universo".
- ESTADÍSTICA AGRÍCOLA 1910-1911. Oficina Central de Estadística. Sección de Agricultura (*Agricultural Statistics. Central Office of Statistics. Agricultural Section*) Santiago de Chile, 1911. Tipografía, Litografía y Encuadernación, Barcelona.
- ANUARIO ESTADÍSTICO DE LA REPÚBLICA DE CHILE. AÑO 1911. Oficina Central de Estadística. Minería y Metalurgia (*Annual of Statistics of the Republic of Chile, 1911. Central Office of Statistics. Mining and Metallurgy*). Santiago de Chile, 1912, "Universo" Press.
- ESTADÍSTICA COMERCIAL DE LA REPÚBLICA DE CHILE CORRESPONDIENTE AL AÑO 1911, Superintendencia general de Aduanas (*Commercial Statistics of the Republic of Chile for the Year 1911. General Superintendence of the Custom Houses*). Valparaíso, 1912, Soc. Universo.
- MEMORIA DE LA INSPECCIÓN GENERAL DE COLONIZACIÓN E INMIGRACIÓN CORRESPONDIENTE A 1911. (*Report of the General Inspection of Colonisation and Immigration for 1911*). Santiago, "Universo" Press.
- NOTIZIE STATISTICHE SULLA REPUBBLICA DEL CHILE (*Statistical Information on the Republic of Chile*). General Consulate of Chile in Italy. Rome, 1914.

OTHER SOURCES :

- BERTRAND (Alejandro) : Conferencias sobre cuestiones salitreras (*Lectures on Questions connected with Nitre*). Santiago, 1912, Barcelona Press.
- ENCINA (Francisco A.) : Nuestra inferioridad económica. Sus causas, sus consecuencias. (*Economical Inferiority. Its Causes and Consequences*). Santiago, 1912, Imprenta Universitaria.
- GALDAMES (Luis) : Geografía económica de Chile. (*Economic Geography of Chile*). Santiago de Chile, 1911, Imprenta Universitaria.
- GALDAMES (Luis) : El comercio interior de Chile (*Chile Home Trade*). Santiago, 1908 Soc. "Universo".
- IRARRÁZAVAL (L. José) : El ganado lanar en Magallanes (*Sheep in the Territory of Magallanes*). Santiago, 1910, Imp. Barcelona.
- PEREZ (Canto Julio) : Chile, Porter's Progress of Nations. London, 1912. George Routledge and Sons Ltd.
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Chile is known almost exclusively as a mining country and above all as a great storehouse whence the world obtains its supply of nitrates. Little is known by the general world of its agriculture or of the forests which form a part of its wealth. Its agricultural production has attained considerable importance, but is still capable of immense development, because there is a large area of soil as yet untilled as well as whole regions of virgin forest and unutilised pasture land. In this article, we propose to give an outline of the agricultural economy of Chile, and show the resources, the present and the future of its agriculture, as we have already done in the case of other countries of Latin America; and, finally, to consider the Chilean land question, which is, in great part, only a problem of colonisation.

§ 1. SOME GEOGRAPHICAL AND DEMOGRAPHIC DATA.

The form of its territory is quite peculiar to Chile, a long stretch of land (757,366 square kilometres) extending north and south along the coast of the Pacific Ocean, between the 17th. and the 56th. degree of latitude, and bounded in its total length on the East by the steep slopes of the Andes. Its width varies from 140 to 420 kilometres, its total length being 4,300 kilometres.

In the southern Chile has several islands along its coast between the 41st. and 56th. degree of latitude and Cape Horn.

owing to its special conformation, its length stretching through 39 degrees of latitude, Chile presents much variety of climate. Its northern part is tropical with tropical productions; its middle part is temperate and more adapted for agriculture, while the southern part has a cold climate and is particularly rich in forests. The greater part of the cultivated land lies between the Andes and the sea, more particularly in the middle region, which also has the largest population.

Geographical Zones of Agriculture. — We have spoken of three geographical zones into which Chile may be divided, and these correspond to three distinct zones of production.

(1) The *northern zone*, extending from the confines of Peru to Coquimbo (lat. 30°), is almost exclusively a mineral region. It yields in abundance many valuable products, such as guano, nitrates, borax, iodine, silver, copper and iron etc.

It is from here that Chile supplies the farmers of the whole world, nitrates, the production of which increases year by year, and the export duty on which furnishes a considerable part of the country's financial resources.

Here the climate is warm and dry all the year and rain seldom falls. In the interior the temperature is very high, but on the coast, owing to cold Humboldt's current, it is moderate, ranging from a maximum of 20° to a minimum of 7°. The difference of temperature between day and night is very great.

As there is almost no rainfall, agriculture can only prosper in the vicinity of the few streams. Yet the fertility of the land is great, and if it is cultivated and irrigated its produce is of the best quality. Future success in this zone must depend on irrigation.

(2) The *middle zone* extends to the province of Concepción (lat. 35°). It has a temperate and very healthy climate. The maximum temperature is 35°, the minimum — 2°. The seasons are clearly marked. Rain falls only in winter, increasing in quantity towards the south, with an average fall of 170 millimetres at Coquimbo, 500 mm. at Santiago, 1,000 mm. at Concepción. We must observe, however, that some years are exceptionally dry, others equally rainy, and these average figures therefore inapplicable to either.

This zone, although the soil contains copper, coal and iron, and it has many industries, is above all agricultural. The ground is very fertile, especially in the northern part, for the phosphoric acid and calcaireous deposits of the soil gradually diminish towards the south. The largest returns are obtained from vines, fruit-trees, cereals, vegetables and cattle. Particularly prosperous is the valley lying between the Andes of the interior and the coast chain; a branch of the Andes following the coast line gradually rising to the height of 1,000 and 2,500 metres.

(3) The *southern zone* comprises the remainder of the Chilean territory that is from Concepción to Cape Horn; the climate is damp and cold. The maximum temperature is 20° and the minimum — 6°. Rains are abundant, and fall during eight or nine months of the year, so that at Valdivia (lat. 30° 49'S.) the average rainfall is 2.55 m; and it is 3 m. and more towards the Straits of Magellan.

This zone, with the exception of a part entirely unproductive, is well covered with woods and meadows, so that it lends itself chiefly to the exploitation and sheep improvement.

But the subdivision of the country in this way must not be considered as absolute, for in the northern zone we may find cultivated tracts, in the middle zone, where these most abound, iron and copper are found, while in the southern zone there are beds of coal.

The tracts best suited for agriculture are found in the plains and slopes of the middle zone, and the more northern part of the southern.

The middle and southern zones are watered by numerous torrents from the Andes, which are utilised for purposes of irrigation. On account of the short course and the great changes in the level of their beds, they overflow after abundant rains and cause inundations. The middle zone is the best irrigated, for here we find the rivers Maipo, Mapocho, Maipo and Bio-Bio. The two last bring down respectively 10,000 and 10,000 feet of water per second; the Bio-Bio is navigable for small craft.

On the coast are numerous ports; the more important, from south to north, are Punta Arenas, Valparaíso, Talcahuano, Antofagasta and Iquique.

2. *Population.* — This is chiefly of European origin. The original race, the Indians or Araucans, who are still in a backward state of civilisation, have become few, and will probably soon disappear altogether. According to the census of 1907, there were 101,000 of them all told, concentrated in the tract in the south called Araucanía.

The population of Chile has not increased very rapidly; in 1835 it was estimated at 1,000,000; in 1910 it was calculated at 3,500,000 (1). The census of 1907 showed an increase of 1.52% as compared with the figures of 1895. This increase was due almost entirely to immigration; in 1908 there were 5,584 immigrants; in 1910, 2,543; in 1913, 622; in 1912, 1,599. The distribution of the population is much influenced by the geographical and physical conditions; in the northern zone, warm and above all in the mines, and in the southern zone, cold and pastoral, the density is low (from 1 to 1.2 per square km.); in the middle zone, temperate and agricultural, the density is highest (from 35 to 55 per sq. km.) Here are found the most populous cities, Santiago (350,000 inhabitants), Valparaíso (200,000 inhabitants), Concepción (60,000 inhabitants).

There is a marked tendency towards concentration in cities; according to the census of 1885, the rural population was double the urban, while, according to the census of 1895 and that of 1907, the urban population was respectively 39% and 43% of the total.

The number of strangers, computed at 135,000, form only 4% of the population, and are chiefly Bolivians and Peruvians (in all about 50,000); the nationalities most largely represented are Spanish, Italian, English and French. According to the census of 1895, the total number of foreigners was only 79,000.

The working population is calculated at 1,250,000 individuals thus deduced:

[1] It is thought the figures given by the census fall short of the truth. In fact the population of Chile is calculated at 4,000,000 at least.

(1) Persons occupied in agriculture, peasants and agricultural labourers		220
(2) Persons occupied in manufacturing and domestic industries :		
(a) On wages or engaged on piece work	300,000	450
(b) Milliners and dressmakers	130,000	
(c) Tradesmen, contractors, employees	20,000	
(3) Persons occupied in mining industries		40
(4) Persons occupied in commerce (proprietors, employees)		140
(5) Members of liberal professions		30
(6) Public officials :		
(a) Civil servants	10,000	40
(b) Army, navy, police	30,000	
(7) Domestic servants		90
(8) Labourers without fixed occupation		240
Total		1,230

The movement of the population of late years has been as follows

Year	Births	Marriages	Deaths	Excess of Births
1906	117,032	18,507	104,890	12,142
1907	126,104	21,286	96,534	29,570
1908	120,733	21,483	104,226	25,507
1909	129,333	19,637	104,707	24,626
1910	129,999	19,352	109,399	20,600
1912	135,255	21,298	107,887	27,368

Thus we see the birth-rate has risen. The death rate is kept up through infant mortality, which is highest among the working classes, owing to unsanitary conditions and the want of proper treatment.

§ 2. THE BASES OF THE NATIONAL ECONOMY.

The bases of the national economy are the *extractive industries*, *agriculture* and *manufactures*. The predominance of the first and the mono-culture which the country enjoys in the production of nitrates give Chilean economy its special characteristics, which will be examined in the present article.

1. *Extractive industries*. — The profits of the extractive industries valued in 1911 at 330,000,000 gold pesos (1). Nitrates figure for 269,000

(1) It must be observed that the monetary system in Chile is on a paper basis, compulsory circulation; the value of the paper peso is subject to great fluctuation. The standard gold coin is the gold peso worth 18 pence (\approx 1.89 fr.) with an average value of about 80 % in paper. During the last few years the paper peso, of the same nominal value as the gold peso, has been quoted on an average at 1.05 fr.

In this article, peso, means the paper peso, except when the gold peso is specified.

1 pesos, and the other minerals, which in order of importance are per, coal, iron, gold, etc., only at 61,000,000 pesos.

It is evident that the production of nitrates preponderates above all other extractive industries; but its importance in the Chilean economy will be better appreciated in relation to other facts.

The nitrous region, almost desert and distant from the centres of agricultural production, gives rise to an active internal traffic to supply demand for food and other produce. This fact is of great importance regarding the price of agricultural produce and consequently of the revenue of the land. In 1910 articles of food brought into the ports by the coasting trade were valued at 206,400,000 gold pesos; of this sum about 99,700,000 gold pesos, i. e. 49% was value of goods for the nitrous zone, which covers an area of scarcely 73,958 square miles and has only 223,000 inhabitants, or 1% of the population.

It must be observed that the nitrate industry is one of the chief sources of the wealth of the State to which it contributes in the form of export duties about 40% of the whole revenue. In 1912 the State derived from this source 185,037,724 gold pesos.

The produce of the extractive industry is almost all exported, constituting about 3/4 of the whole value of the exports.

2. *Agriculture.* — Second in importance comes agriculture, though reality less lucrative than manufacturing industry. But under the latter are included all trades connected with agriculture, livestock improvement, cultivation of timber, etc. Agriculture, with the industries connected with it, furnishes the greatest part of the food supply and occupies the largest number of people; the home trade is chiefly in its produce and it absorbs the largest proportion of the capital invested in the country (57%).

3. *Manufacturing Industry.* — This is chiefly directed towards the production of food, by the treatment of the produce of agriculture, as shown in the following table for the year 1909.

Industrial Treatment of	Capital Invested	Raw Material	Yield	Number of Workmen Employed
	In millions of gold pesos			
Stable Produce	115	98	160	29,350
Animal "	40	32	56	14,750
Mineral "	34	12	33	11,800
Other "	33	25	51	19,900
Total	222	167	300	75,800

Among industries connected with the preparation of vegetable produce must be noted the making of flour and bread, sugar refining (1), the very flourishing breweries, the making of macaroni and of jams, and the utilisation of timber especially for furniture making.

Among industries connected with animal produce, the first place is taken by tanning and the making of soles and of shoes; then come the preserving of meat, refining of fats, and soap-making. Other industries which must not be forgotten are weaving, the manufacture of paper, glass, etc.

According to a recent report of the Consul General of Chile in Italy the factories now working are 5,722 in number, with a motor force of H. P. 61,046, distributed among 2,945 motors; the capital employed: 472,000,000 fr.; the raw material imported was calculated in 1912: 106,000,000 fr., the raw material of the country itself was 195,000,000 fr. and the annual production of the factories was 536,000,000 fr.

§ 3. AGRICULTURAL PRODUCE.

In Chile agriculture has followed a different course to that it has taken in other new countries with temperate climates. Fifty years ago, Chile supplied the Argentine Republic, Australia, California and Peru with grain and flour, but now it takes a subordinate place, as an exporter of the articles.

The exportation of wheat, which in 1845 was 4,000 tons, rose in 1887 to 124,000 tons, but fell in 1890 to 28,927 tons, and in 1911 to 13,841 tons. The export of flour also diminished from 129,000 tons in 1887 to 32,000 in 1890 and even to 5,150 in 1911.

This is due to the radical change in the system of colonisation and the agricultural development of large and fertile countries like Argentina, the United States, Canada and Australia, which offer more favourable conditions for production.

Chilian agriculture has therefore been obliged to concentrate itself on the home market, but the wide field which this offers has enabled agriculture to develop in spite of reduced exportation.

And in fact production has continued to increase, owing to the increased capacity of the home market since the annexation of the nitrous zone in the provinces of Tacna and Arica conquered from Peru in 1884.

As there are no statistics for earlier years, we can only give the estimates of private authorities, according to which the wheat growing area was 1870, 1880 and 1885, respectively, 270,980 ha., 297,127 ha. and 292,979 ha. According to official statistics, the area devoted to wheat is now about 418,000 hectares (2).

(1) The sugar is imported raw from Peru.

(2) From unofficial returns it appears that the grain growing area is about one million hectares.

There are no precise data regarding the land devoted to agriculture; according to some authorities, it is from 13,000,000 to 15,000,000 hectares (1); according to others the agricultural area is 38,000,000 hectares (2). The forests occupy, some think, about 9,000,000 hectares; according to others, they extend over fully 18,000,000 hectares.

The cultivated area, according to data recently supplied to us, does not on an average, exceed 1,100,000 ha. The following table shows the distribution of the land according to the various crops, and the corresponding yield, in the two years 1907-8 and 1911-12, together with the average for the five years (3):

Crop	1907-1908		1911-1912		5 years 1909-1912 (averages)	
	Area Cultivated	Yield	Area Cultivated	Yield	Area Cultivated	Yield
Wheat	462,470	5,162,035	448,870	6,150,231	417,766	5,294,917
Rye	55,576	816,604	41,878	707,862	43,559	782,712
Maize	36,285	—	27,972	—	27,071	—
Beans	25,526	341,310	22,766	387,774	22,570	337,696
Peas and lentils	52,077	531,463	45,742	581,218	43,877	586,777
Barley, lentils, tobacco, etc.	7,899	* 34,804	3,632	* 16,649	5,895	* 22,705
Potatoes	31,200	2,194,414	26,672	2,627,954	27,454	2,145,947
Alfalfa	140,500	—	—	—	168,302	—
Other	210,211	—	—	—	268,459	—
Orchard trees	22,389	44,925	10,471	65,823	16,310	52,060
		hectolitres		hectolitres		hectolitres
Total	59,066	1,905,209	56,781	1,982,013	58,639	1,877,292

* The figures with asterisks refer only to vetches and lentils; those for the cultivated area include also the area under tobacco, hemp and flax.

In calculating the total area of agricultural land, account must be taken of fallow land and natural grass land, which, on account of the extensive character of Chilean agriculture, occupy a vast area. On this point also accurate statistics are wanting; some authors calculate the total area of agricultural land at 6,000,000 ha. (4). Of the cultivated area, about one million hectares are irrigated.

(1) See *Annuaire International Statistique Agricole pour 1910*. International Institute of Agriculture, Rome, 1912 and SCHNEIDER above mentioned.

(2) Report of the Consul General of Chile in Italy, "Statistics of the Republic of Chili."

(3) According to private authorities, the figures relating to cultivated land, and yield ought to be higher; wheat alone, for instance, is said to be grown on 1,000,000 hectares and yield annually about 10,000,000 hectolitres. The difference is due to the incompleteness of the official returns.

(4) SCHNEIDER, above mentioned.

1. *Cereals* — The chief crop, as shown by the preceding table is that of cereals, especially of wheat, grown upon 38% of the cultivated area; yields on an average from 10 to 11 quintals per hectare. On irrigated land where wheat alternates with leguminous plants and maize, the yield is 11 quintals per hectare; on other farms, that is on the greater part of the wheat growing area, the land lies fallow for a year after the wheat crop and here naturally the yield is less, not more than 6 or 7 quintals per hectare.

The current prices on the local market during the first months of 1914 were, for every 73.60 kilograms, 16 pesos in February, 20 pesos in April, 18 pesos in May. The average price of wheat in 1909 was 14 pesos. The greater part of the produce is consumed in the country; in 1900 it was even necessary to import. But of late wheat has been more extensively cultivated so that in 1911 it was possible to export 13,841 tons, chiefly to Great Britain (5,300 tons) and to Germany (3,400 tons).

On the London market Chilean wheat (*Standard Chilean White Wheat*) is sold at 37 shillings for 500 lbs. On June 13th., 1913, the price was £1.17s. 3d. This price is for wheat on quay and includes freight and insurance.

Wheat farms tend to occupy the arid rather than the irrigated land, which is used, more for intensive cultivation or the production of cattle or the raising of dairy cows and cattle for fattening, because the profits are thus found to be much greater.

Second in importance comes the cultivation of *barley*, of which about 800,000 quintals are produced (1); about 15 or 16 quintals per hectare. About half is consumed in the country for making beer or as cattle food; a part is reserved for seed and the rest is exported. Great Britain purchases nearly $\frac{1}{10}$. On the London market, Chilean barley is highly prized, and the finer qualities are used for making the best beer. A *quarter* of 448 lb. was sold (June, 1913) for £1.12s. 6d., freight and insurance included. On the local market the price at the same date was 13 $\frac{1}{2}$ pesos for 71 kilograms.

Of *oats* about 400,000 quintals are produced, at the rate of about 10 quintals per hectare; this is nearly all exported.

2. *Cattle Foods*. — As regards extent of area cultivated, cattle food grown on about 500,000 hectares, come next after the cereals. The greater part of this area is covered with artificial grass utilized as pasture for cattle. Only 40,000 hectares are utilized for the production of ensilage and for seed.

In the provinces lying to the north and centre of the middle zone lucern predominates, and clover in that to the south. The amount of ensilage produced is calculated at 2,000,000 quintals and is exclusively obtained from lucern; the amount of seed, chiefly of clover, is about 250,000 quintals.

(1) The private authorities above mentioned state that the production of barley is about 1,500,000 quintals annually.

Lucern is cut four or five times during ten months of the year ; rain in summer is almost unknown, and therefore the preparation of ensilage is easy and lucrative. In the provinces of Aconcagua and Santiago, connected with the farms there are numerous establishments for the preparation of ensilage, equipped after the latest style with machinery worked by hydraulic or electric force. The price of ensilage is 2.50 pesos for 46 kilograms of the first crop and 3 pesos for the second.

3. *Hoed plants.* — Hoed plants (beans, potatoes etc.) or *chacareria* crops (1) are very abundant in view of the large consumption of them in the country and their extensive exportation; but in their case progress is slow, because of the backward system of cultivation, the labour being performed by hand. The employment of machinery would increase the production, reduce the cost and increase the exportation.

Among the hoed crops, the most important is the *bean* which, with potatoes and wheat, forms the staple food; according to official data, beans are cultivated annually on from 30,000 to 35,000 hectares (2) and the yield 450,000 quintals. The price varies from 33 to 38 pesos per quintal.

Next in importance to the bean comes the *potato*; to this crop about 1,000 hectares are annually devoted, producing about 2,500,000 quintals (3), almost all consumed in the country as food for men and animals and in the manufacture of alcohol.

The potato is generally cultivated near the coast, especially towards the centre, where it flourishes in land that is not irrigated. If the means of communication were better, the yield might be increased tenfold.

Maise is grown generally as an alternate crop with beans; the area covered by it is not large, from 23,000 to 25,000 hectares, and its yield from 300,000 to 350,000 quintals, consumed entirely in Chile.

Among other *chacareria* crops may be mentioned peas, lentils, and chickpeas.

4. *Viticulture and fruit cultivation.* — The intensive cultivation of woody plants, especially of the vine and of fruit trees, is largely developed, and supports flourishing industries, viz., the making of wine and jams. About 60,000 hectares (4) are devoted to vines, distributed throughout nearly all the middle zone, but most frequent in the north and centre; the vine also grows in the nitrous zone, where the land is irrigated. In the north as far as the province of Coquimbo, the vine is principally cultivated to make the finest wine, such as port and sherry, as well as cognac. Grapes are also dried and the raisins prepared for sale. In the central provinces, and wine are produced (chiefly Bordeaux and table wines) as well as

(1) A *chacara* is a small farm of intensive cultivation, worked on the *melayer* system.

(2) According to the private information above referred to, the land under beans is from 120,000 to 150,000 hectares, producing about 1,500,000 hectolitres.

(3) The above quoted consular report gives 3,500,000 quintals as the average yield; the area cultivated is, according to private information, about 50,000 hectares, with a yield of 1,000,000 hectolitres.

(4) The above quoted private sources state the area of the vineyards at 100,000 hectares.

brandy. The must, called *chicha*, is largely consumed by the lower classes. In the south of the province of Linares, the vine is usually cultivated in dry soil producing must for immediate use and an inferior kind of wine.

The annual yield of the vines may be thus distributed: 2,000,000 hectolitres of wine, 600,000 hectolitres of *chica*, 400,000 hectolitres of *chacolies* (wine made from green grapes): 100,000 hectolitres of brandy containing 50 % of alcohol, 10,000 hectolitres of raisins. This, it will be seen, is a considerable yield, the value of which is about 100,000,000 fr. not taking into account the grapes consumed.

Fruit cultivation is also very profitable. The climate and the soil of Chile are adapted to the production of exquisite fruits, and the jam making industry is of great importance. The fruits of temperate climates are produced in great variety and abundance, especially peaches, pear apples, plums, figs and nuts. These last are exported in large quantities to Argentina and to the United States (in 1911: 3,871 tons to the value of 1,858,000 gold pesos).

The area planted with fruit trees is, according to official reports about 16,000 hectares (1): the average profit per hectare is calculated at 400 gold pesos.

But some plantations yield still more. Nut trees planted 15 metre from each other produce 80 kg. of nuts each, equal to a yield of 1,800 paper pesos per "*cuadra*" (2). It must, however, be remembered that from the time the nut tree is planted twelve or fifteen years must elapse before it attains its full growth; during that time, however, the intervening space is utilized for the cultivation of herbaceous plants. The plum tree produces about 50 kg. of fruit, which is reduced by drying to 10 kg. and is sold at 40 centimes per kg.; and a *cuadra* with 625 trees will yield 2,540 pesos. The apple, orange and almond yield large profits, about 5,000 pesos per *cuadra*.

The diseases of plants naturally influence the profits, and much remains to be done to protect the fruit, but these diseases are not frequent or very serious.

The growth of fruit trees is so rapid that it is not rare to see them produce after the third year; after the fifth they reach almost their full rate of production.

The planting of olives has now been begun and if judiciously managed it may become very remunerative. In Chile olive oil is consumed in large quantities, but it is all imported. In 1911 oil imported for food reached the amount of 4,041,698 kg.; of this at least 1,100,000 kg. came from Italy and Spain, and a considerable part of the 2,300,000 kg. imported from the United States was olive oil.

5. *Kitchen gardens*. — Kitchen vegetables are cultivated very intensively and for the purpose 100,000 ha. are utilised. Onions, garlic, tomatoes, celery, lettuce, beans, asparagus, artichokes, radishes etc., are

(1) According to private authorities it is about 40,000 hectares

(2) Cuadra = about 1 1/2 ha (15,615 sq. m.).

grown in large quantities, and form a considerable part of the food of the people. The average yield, calculated at 700 pesos per hectare, might be considerably increased, if the method of cultivation were less rudimentary, carried on as it is by people without technical knowledge who do not understand the use of manures.

6. *Other crops.* — It is believed that sugar beet might be grown successfully, especially in the south; the chief hindrances are a want of technical knowledge, and the indolence of the farmers; in fact some years ago a sugar beet factory proved unsuccessful, because the farmers who were to supply the raw material could not fulfil their engagements owing to a want of competent labourers.

Thus Chile has to import refined sugar from Germany (110,850 quintals in 1911) and raw sugar from Peru (658,949 quintals), which is refined in a large factory near Valparaiso.

Other crops of less importance are tobacco, hemp, and flax.

The cultivation of flowers must not be forgotten, for the soil of the central provinces is most favourable to their growth. This industry is chiefly for home consumption in the cities, and the few persons occupied in it are generally foreigners. It gives considerable profits.

§ 4. FORESTS AND THEIR PRODUCE.

The area covered by forests is calculated to extend over 9,000,000 hectares (1). This is only an approximate figure, for a great part of the area is still unexplored. It lies chiefly in the southern zone and the northern part of the middle zone.

Here we find oak, laurel, cypress, pine, larch etc. The most valuable timber-tree is the oak, which makes excellent railway sleepers.

Large areas are covered by the thickest virgin forests, almost tropical in the great luxuriance of their vegetation. Here may be found the *copaiba*, a tree which grows to a height of 30 or 40 metres with vivid red flowers making it conspicuous against the background of green of the surrounding woods.

Private owners possess about 3,750,000 ha. of the forest land. The rest belongs to the State.

The forests nearer the lines of communication are slowly but surely disappearing, for the woods are not carefully exploited according to the best forestry rules. Besides a large part has been cleared by burning to give space for the cultivation of cereals, and occasionally conflagrations are caused by lightning. Such fires continue for days their work of devastation, leaving here and there burned trunks as the last remains of the forest.

(1) The consular report gives 18,000,000 hectares.

So that which in other countries constitutes a fund of wealth is in Chile being partially destroyed, against all the rules of, prudence.

Besides the great stretches of forest, many forest trees grow on the slopes and in the plains; among these are the pine, cypress, carob, "bolde", "lengue" and "quillai", the bark of the two last of which is used in tanning.

Much timber is consumed as fuel, either simply as wood or as charcoal and much is employed in building.

Want of capital and means of transport are serious impediments to the utilisation of the vast riches of the forests, and Chile actually imports wood, both unwrought and manufactured, in large quantities.

In 1911, Chili imported wood to the value of 3,747,000 gold pesos, of which about 2,000,000 gold pesos were spent on pine timber, and 551,000 gold pesos on manufactured wood (furniture). The greater part comes from the United States.

There are notwithstanding many establishments in Chile for wood manufactures, and furniture making. About 25,000,000 pesos are invested in such enterprises and it is calculated that the raw material employed costs 13,000,000 gold pesos, the value of which increases to 29,000,000 gold pesos when manufactured.

§ 5. LIVESTOCK IMPROVEMENT.

Livestock Improvement and the industries connected with it constitute one of the most remunerative branches of the economic work of the Republic.

The livestock in Chile, according to the census of 1906, was distributed as follows:

	Head
Horses, Asses, etc.	746,000
Horned Cattle.	2,675,000
Sheep.	4,528,000
Goats.	476,000
Pigs	340,000
	<hr/>
	8,765,000

1. *Horned cattle.* — Most of the horned cattle are found in the middle zone. The prevailing type is the Durham, crossed by the native race, descended from the ancient Spanish breed. The Durham has given excellent results; there are several very successful breeding stations.

The cattle are kept in large pasture grounds, all the year in the open air. Sometimes in winter, however, they are kept in half open stalls or they are sent to the slopes of the Cordilleras to spots sheltered from the cold.

the farms are not very large; those containing several thousand head are rare. In general the improvement of horned cattle is reckoned as a part of agriculture.

To develop this industry, a high tax, 26 and 22 gold pesos per head, for bulls and cows respectively, is levied on all cattle imported from the Argentine Republic. Still this importation constantly increases, for the national production falls far short of the demand, which grows greater and greater. As we have seen was the case with cereals, Chile at one time exported livestock to a considerable extent, for in 1867, the amount of head exported was 123,145. Then, exportation gradually decreased, and a progressive importation took its place; thus in 1872 the value of horned cattle imported was 713,872 gold pesos, in 1875 1,540,255 gold pesos; in 1885, 3,149,192 gold pesos; in 1911, 19,402,750 gold pesos for 102,817 head of cattle imported from Argentina alone. From other countries, the importation is small and limited to breeding stock.

Naturally, there has been a corresponding rise in prices but in spite of this the cultivation of cereals has been detrimental to that of horned cattle improvement. So it has happened that, whilst fifty years ago the breeding of horned cattle was the most important branch of industry, it is now not sufficient for the demands of consumption. It is therefore natural that the improvement of horned cattle, like the production of milk and butter, should be highly remunerative.

The following table gives some figures in regard to the prices of livestock in June, 1913 on the market of Santiago, the difference in price between fattened and lean livestock should be observed.

Prices of Livestock.

Value per head in pesos (paper)		
	Lean	Fattened
Bulls	178 ; 200	435
Calves (of about 2 years)	110	390
Small calves (6-12 months)	78	90 ; 104
Cows	272	380
Heifers (Full grown)	226 ; 322	460 ; 478
Young oxen	136 ; 138	232
Sheep	—	22
Goats	—	20
Pigs (6-8 months)	—	75
Horses, Asses etc.	38 ; 75	38 ; 75

The price of beef of the best quality was at the same period about 20 fr. per kg.; of lamb of the best quality, about 1.40 fr. per kg.; of mutton, 60 centimes per kg.

The improvement of livestock in the middle zone might be much more developed, and the industries connected with it (milk, butter and cheese) would benefit greatly if conducted on better systems.

2. *Sheep.* — While the horned cattle is far from satisfying the demand of the home market, the improvement of sheep on a large scale, leaves a large margin for exportation; in 1911, the export of frozen mutton from Punta Arenas alone amounted to 6,695 tons valued at 2,678,044 gold pesos.

The region best adapted to sheep-rearing is the *Territory of Magellan*, that is the cold zone between 47° lat. and the extreme south of the continent, between the Pacific Ocean and the Argentine frontier.

The eastern slopes of the Cordilleras are covered with immense pastures which, owing to the severity of the climate are only fit for sheep improvement, and this has only developed under great difficulties. Half a century ago there were no sheep in the Territory of Magellan; in 1877 the first flock of 300 animals was imported from the Falkland Islands, where some Englishmen had flourishing sheep-farms. The farmers had at first to contend against the depredations of the natives, as well as of pumas and other wild beasts, but, in spite of all, there were in 1884 about 40,000 sheep. Up to that time, the Government had made free grants of land to all who would settle in the Territory of Magellan as sheep farmers. But when this industry had developed, it was decided to let the land for periods of a maximum of 20 years, offering the leases for open competition; the minimum rent was to be 0.05 paper pesos the hectare for the first ten years and 0.11 pesos for the next ten. In the same year the first public competition took place by which 90 lots of land, some of them of 30,000 hectares each, were assigned to various buyers, besides a lot of 90,000 hectares. The entire area of these concessions amounted to 529,000 hectares; the price was somewhat above the minimum fixed.

Some years later, further contracts for letting land were made, as well as gratuitous concessions in Tierra del Fuego, where flourishing companies for sheep rearing were established. Of these the most important was the *Sociedad Exploradora de Tierra del Fuego* (Tierra del Fuego Exploitation Society), which obtained a grant of 1,000,000 hectares (the largest yet made) on the following conditions. The grantee engaged (1) to form within three years a society with a minimum capital of one million pesos; (2) within two years after the formation of the society to introduce 10,000 sheep, 200 head of horned cattle and 150 horses, asses etc.; (3) to pay to the State as the price of the concession 100,000 pesos at the expiration of the term, leaving all the improvements, the livestock and the other moveables to the Government.

In 1893 a new law was passed to prohibit gratuitous grants of land in the Magellan Territory and all grants by private contract, and only permitting the letting of land on the basis of public competition. From that time no other large companies were formed, but those already in existence consolidated themselves and prospered.

An important law connected with this subject was that of January 13th, 1902, authorising the Government to sell one million hectares in the Ter-

of Magellan. In the same year the land was sold by public auction, 4,000 hectares divided into 73 lots being sold at the average price of 5.40 pesos per hectare. The rest was disposed of at a second auction, and as the quality of the soil was inferior, the average price was 3 pesos per hectare.

In 1905, as the result of a new law, 397,000 hectares of land situated at latitude 51 (*Ultima Esperanza*) were sold. But, as the auction took place at a time of feverish excitement on the Exchange, the price per hectare for one lot rose to 26.20 pesos, for another to 36 pesos, and for the third to 56.60 pesos. It must be observed that this third lot had been valued by the Treasury experts at 5 pesos per hectare. The greater number of purchasers did not fulfil the conditions of the contract, and were even to sacrifice the security they had given: the land was therefore sold by auction some months later for an average price of 12.25 pesos per hectare.

All the land suitable for sheep rearing in the Territory of Magellan has been alienated amounts to an area of 1,750,000 hectares; its sale has been for the State the sum of 12,750,000 pesos, i. e. an average of 7.25 pesos per hectare.

About 4,000,000 hectares adapted for sheep rearing still remain to the State. Much of this land is let or granted for a term, so that by degrees it will again return to the State.

The formation of private property in the Territory of Magellan has led to excellent results; permanent improvements have been made on the land; factories for the utilization of animal produce have been built; several establishments for the preparation of frozen meat have been installed; and the fertility of the breeds of the animals has been considerably improved. Thus, in the Territory of Magellan, where sheep were unknown before 1877, twenty years later (1897) there were 813,000 head, and in 1906 the number had increased to 1,836,000; the average annual increase being 35 %, taking the losses through death into account.

Several establishments for the preparation of frozen mutton, equipped in the most modern style, are working successfully. In this region sheep husbandry is carried on principally with a view to the production of mutton and to this object many *estancias* are giving their attention.

The yield of wool is generally 27 per head. Its price, leaving out of the calculation the fluctuations caused by the conditions of the market, varies with the system of sale. Some breeders sell the wool in bales at Punta Arenas, where it is prepared and exported; others, the greater number, sell it directly in Europe through the great London firms, after it has been washed and prepared. The average net price in Europe for Magellan wool was 5.53 pence per lb. in 1895, 7.63 pence in 1902, 11.44 pence in 1906 and 9 pence in 1910.

The wool exported from the port of Punta Arenas and sent almost exclusively to England amounted in 1911 to 7,631 tons valued at 10,000 gold pesos.

Sheep skins are also a valuable article of export. The price in Europe varies from 5 pence with the wool to 2 ½ d. without the wool. The weight of tanned sheep skins exported from Punta Arenas was 1,500,000 kg. in 1911, valued at 1,100,000 gold pesos.

Another important branch of sheep farming is the supply of the frozen meat establishments. The two establishments for frozen meat at present working buy from 300,000 to 400,000 sheep in the year. The quantity naturally varies with the conditions of the European markets.

The price also paid to the farmers for frozen meat depends on the price in Europe. In 1909, a lamb weighing 54 lbs. (*dressed weight*, that is the weight of the animal without head or legs, 24 hours after death) cost 9s. and a sucking lamb 8s. However, two years later, owing to the fall in the price of frozen meat, the farmers were paid 2s. less per head. It is to be observed that the transport of animals from the "*estancia*" to the frozen meat establishment costs from 6d. to 8d. per head, and this is shared between the buyer and seller.

Sheep improvement has progressed rapidly in a short time, and will have a brilliant future, owing to the great extension of territory suitable for this purpose. It is calculated that in the Magellan regions there are about 3,000,000 hectares capable of maintaining at the same rate of profit as at present, double the number of sheep now on them. In the most favourable situations, half a hectare or even a quarter of a hectare per head is sufficient. Sheep improvement will be very profitable when the land is more divided.

About 2,500,000 hectares of Chilean territory are at present in the hands of the *Sociedad Exploradora de Tierra del Fuego*, which alone possessed (in 1909) 1,046,000 sheep, that is about a quarter of all the sheep in Chile. The Society has a capital of £ 1,800,000 in shares of £ 1 each and gave in 1911 a dividend of 3s. per share. In 1908 the dividend was only 6d. per share; in 1909 it had risen to 2s. Other similar enterprises are very successful, yielding considerable dividends since they have been fully developed, but in their earlier years the dividends were either nil or very small and the work was carried on at a loss.

In addition to what has been said, the importance of sheep improvement in Chile is seen in the commercial transactions of the country. In 1911, produce connected with this industry (livestock, frozen and preserved meat, wool, skins etc.) (1) to the value of 11,000,000 gold pesos was exported.

(1) From these figures must be deducted 2,774,000 gold pesos representing produce in transit at Punta Arenas, coming from Argentina.

(To be Continued).

SPAIN.

THE CADASTRE IN SPAIN.

In order to study the Spanish Cadastre, it will be well to divide our subject into three parts. The first, purely historical, will include the more or less specified proposals that have remained as proposals, or have only realized a small part of what a cadastre is meant to. In the second, which will also be historical and at the same time will include matters of the moment, we shall study the fiscal system existing before the last law on the Cadastre. The third will deal exclusively with current matters, and we shall devote ourselves in it to the study of the Spanish cadastre properly so called, as conceived and set forth in the law in force.

First of all, we shall make no comparative study. In view of the international character of this Bulletin, we think it preferable to leave it to the reader to make his own comparisons as he judges fit.

§ 1. HISTORICAL FACTS.

The first attempt at a cadastre recorded in the economic history of Spain is the General Map of the Kingdom, made in the sixteenth century by Pedro Quirós, by order of Philip II. However, we can say nothing definite in regard to this map, for nothing relating to it is to be found either in the archives or in the libraries.

About the middle of the eighteenth century, another attempt was made, under the auspices of the Prime Minister, the Marquis de la Ensenada; a general inventory was taken of the real estate, which was brought, as far as possible, into agreement with the general Map of Spain, which was rather imperfect at that date. Some fifty years later, the list of the landed estates is prepared, which was really a literal or verbal cadastre, although intended only for statistical purposes, for the agricultural wealth which might serve as the basis of a land tax was not specified in it.

In the nineteenth century, many plans for a cadastre were brought forward and every time the written portion was further separated from the maps. This was doubtless due to there being no good map, and all the tendencies were concentrated in three distinct and independent institutions, each of which represented one of the objects of the cadastre, in har-

mony with each other, though quite distinct. For the mapping of the land, the execution of special works for the preparation of a map was seriously commenced: for the written statement of the legal relation between the real estate and the owners, the *Register of Landed Property* was instituted, a consequence of the Mortgage law; then, in order to have a practical means for fixing the land tax, the *amillaramiento*, that is to say a written inventory of the real estate in relation to its value, was prepared.

At the end of the nineteenth century, laws were introduced to rectify the lists of valuations, or to revise individual valuations, on July 17th, 1895 and August 24th., 1896, instituting as a solution the cadastre for cultivated areas, on the basis of the plans made for the map in preparation. We must add the law of March 27th., 1910, with many others, for reorganization of the finances affected by the colonial disasters, in which, while the cadastre for cultivated areas was maintained, it was made to serve as the basis for a written description of the various landed properties, which was called the *Fiscal Register*. The only practical advantage of all these laws was the preparation of the cadastre with detailed plans now in force.

§ 2. INSTITUTIONS PREPARING THE WAY FOR THE DETAILED CADASTRE.

As we have seen, the Government understood the need of the services that could be rendered by the cadastre, before public opinion or the Government itself were quite sure of the practical manner in which to realise the institution and even as to its quite special functions and bearing. The need becoming urgent, the Government had recourse to a system consisting in the division of the difficulties, occupying itself with each case specially under its various aspects, without waiting to find a clear and definite principle on which to base a general rule applicable in all cases.

The Government could only wait for the completion of the cadastre, to establish the land tax regularly and in as equitable a manner as possible. It was also necessary to establish it by means of *verbal* reports in the case of landed estates, the value of which was estimated for large areas and these reports, as we have said, were called *Amillaramientos*. The Government is not sure of the accuracy of these particular reports considered separately, but it has less doubt with regard to them as a whole, since from them and the valuation scale, called *cartillas evaluatorias*, it obtained an idea of the wealth of a municipal district taken as a whole; it declared this wealth a fixed amount and based on it its calculation of the total amount (*cuipo*) of land tax to be borne by the landholders in proportion to their wealth. In each case, the arrears due from previous years, that for any reason it has not been possible to collect, must be added.

This system is still in force in most of the Spanish provinces, since the land tax, as we shall soon see, is only based on the cadastre in a fifth part of the kingdom.

Even before completing the cadastre it was necessary to establish the legal relation between the real estate and the owners on solid bases of public character; and even, in the absence of the objective basis furnished by a cadastre, consisting in the description of the property from the physical and economic point of view, it was possible in the second half of the last century to found the *Register of Land*, a fruitful and glorious institution in the legal history of Spanish landed property, which is nothing else than a verbal report of all rights on real estate. It is the register of land rights, the Prussian *Grundbuch*, although it can scarcely bear comparison with the *Flurbuch*, the Prussian register of land.

Nor has it been possible to combine the formation of the cadastre with the preparation of the map. It was more urgent to deal with the latter first, which was in fact a matter a little better defined, and better understood; the only thing, therefore, was to undertake the great work demanded or it, before thinking of the cadastre, or thinking of it as a consequence necessarily following it.

The place of the cadastre in Spain is therefore supplied as follows: for the fiscal work there is the *amillaramiento*; for the legal work, the Land Register.

The *Amillaramiento* is an imperfect substitute for the cadastre, for, without the description and the indication of the position of the land, it is impossible to identify it, and, therefore, the Treasury cannot in most cases register the constant changes in the taxable value.

As it is the landowners themselves who establish the *amillaramientos* and *cartillas evaluatorias* without effectual intervention on the part of the management, the reports relating to their wealth and the total amounts are inaccurate. Thus it is no surprise that they can bear a tax of 1% not including additions of various kinds, for we may easily presume, and even be sure that, it is only by securing a large part of their wealth against taxation that they can bear such enormous burdens.

A consequence of the *amillaramiento* system is the application of the system of part payment, for, if those bodies interested had the liberty indispensable in order to amend the taxation papers of everyone according to the variations of the landed property, we may be sure that the interest of the contributors, in conflict with that of the Treasury, would end by rendering the basis of the tax of no effect.

In the same way, the Land Register supplies the place of the cadastre somewhat imperfectly. In spite of all the scrupulous care with which the legal relation between the land and its owners and even their condition is registered, the objective description lacks accuracy and is unreliable. It is thus very difficult and even impossible to identify the holdings by means of the indications provided by the Land Register alone.

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We may form an idea at a glance of the progress made by the Spanish Government in respect to the detailed Cadastre, by an examination of the following table :

Institutions of Cadastral Character, and Cadastres,	Statistical.	1. Land Statistics.	4. Cadastre for Cultivated Areas.
	Fiscal.	2. Amillaramientos.	5. Preliminary Cadastre.
	Legal and Fiscal.	3. Land Register.	6. Detailed Cadastre.

This progress is in accordance with the figures by which we have marked its several manifestations. It has already advanced along through the whole series of cadastres in which only verbal indications are registered and has utilised all the results. A great part of the agricultural wealth and of the livestock, but not all, was first the object of statistical returns, then of *Amillaramientos* and thus, although imperfectly, the need of a fiscal organization has been supplied. After so many years, comparatively a small portion of Spanish land has been registered in the Register of Land and it can scarcely be expected that the rest will be entered until the information is given in the detailed cadastre.

In the class of cadastres including both plans and verbal indications, commencement has been made with that for cultivated areas in the degree permitted by the condition of the work undertaken for the preparation of the map, but the insufficiency of this cadastre for the complex ends in view was soon recognised. Then the preparation of plans of the individual holdings was resolutely undertaken, even without consideration of the previous legal delimitation, and often, even, of the direct measurement of the holdings, in order to arrive at a knowledge of the area from the above plan by the indirect methods we shall now indicate. To this detailed cadastre the name of preliminary cadastre has been given to show that by means of it it is only intended to meet requirements of fiscal and statistical nature. At this point of advance towards a detailed legal and fiscal cadastre, the Spanish Government is perplexed and irresolute, in view of serious problems of another character by which it has been recently confronted against its will, and perhaps even contrary to its expectation, and in view of the cost to be borne in connection with this Cadastre, which is as it were the limit of the evolution we have just been tracing.

§ 3. PRESENT STATE OF THE SPANISH CADASTRE.

The cadastral operations which are now being proceeded with fairly actively are in conformity with the provisions of the law of March 23rd., 1866 and follow the lines indicated in the following table.

Table of operations for Spanish cadastre.	Work in connection with Plans		1. Local Trigonometrical Surveys.	
			2. Polygonal Tracing of Municipal Limits, Roads of Every Kind and Circuits of Towns.	
	Period of Measurement.		3. Measurement, on the Plans, of the Area of the Topographical Polygons.	
			4. Tracing of Parcels.	
	Agronomic Work.	Period of Declarations.		4 bis. Polygonal Tracings, from the Point of view of Quality.
				4 ter. Polygonal Tracings, from the Point of view of Classification.
	Period of Valuations.		5. Landowners' Sworn Declarations.	
			6. Comparisons.	
	Fiscal Period.		7. Individual Valuations.	
			8. Total Valuations.	
			9. Preservation and Rectification of the Preliminary Cadastre.	
			10. Transformation of the above into a Detailed Cadastre.	

Tracing of Plans.

This work is part of that executed in preparation of the general Map. However, as it is desired that the work required for the cadastre may be commenced and have made sufficient progress before the work for the map is finished, that part shown in the above table has been pushed forward, though it will be brought into harmony with the geodetic tracing and completed it with the details of the land and the taking of levels indispensable for the cadastre.

This work for the map which is being carried out in advance for the cadastre consists also of local trigonometrical surveys independent of those of the municipal district. It includes also the tracing of the figures deduced from their apices, that of the line formed by them in the polygon the sides of which mark the geometrical limits of the municipal district, the roads and waterways and the boundary lines of towns of more or less importance.

By the tracing of these lines, the municipal district is divided into a large number of local polygons, the area of which may be measured on the plans by means of the designs or mechanically and always with an accuracy more than sufficient for the needs of this preliminary cadastre.

The work of making these general plans and also that for the maps are carried out under the direction of the Geographical and Statistical Institute dependent on the Department of Public Education, the technical staff of which is recruited from among the civil engineers of every kind (Bridge and Embankments, Mining, Mountain, Agricultural), Doctors of Science, Engineers of the Military Engineering Department and of the Artillery officers of the Staff and of the Navy. They form a single volunteer corps in the above Institute, called the Geographical Engineering Corps.

Agronomic Work.

This work is carried out under the direction of the officers of the Financial Department, by the national corps of agricultural engineers, with the assistance of agricultural experts. Their object is to note the cadastral characteristics of all holdings taken separately, these characteristics being classified as under :

Characteristics in Detail for the Preliminary Cadastre . . .	Physical	{ Situation { Boundaries { Cultivation or other Use { Area
	Legal	Kind of Tenure
	Economic	{ Classification { Valuation

These characteristics are noted and registered under the three headings and in the three periods which in the corresponding table are called periods of *geometrical operations* (surveying), *declarations* and *valuations*, generally corresponding with each of the three groups of characteristics we have given immediately above.

Period of Survey. — The work of this period begins with the measurement, according to plans allowing of the establishment of the previous work of the area of each of the local polygons into which the municipal district is divided, and which in the cadastre form units of intermediate area between the municipal district and the parcel. Each of these polygons is reproduced as a drawing on a separate sheet, in the scale of 1 in 25,000 or 1 in 12,500, according to circumstances. Within this perimeter, the official of the cadastre traces polygons showing the limits of the parcels after they have been recognised one by one with the assistance of those interested belonging to the locality, represented by a Municipal Committee to which the law gives the name of Committee of Experts (*Junta pericial*). In these tracings of parcels and on the leaves corresponding, entry is made, definitely, of the *situation*, *boundaries* and *mode of cultivation*, and provisionally of the *area*, thus completing the indications of the characteristics of a physical nature. Indication is also made provisionally of the *classification* included among the economic characteristics, and the *kind of tenure*, a legal characteristic.

The register of areas is provisional, for the official has not measured the parcels: he has first of all accepted the indications given by the surveyors or those supplied by a simple estimation of his own, which is called in Spanish *aforo*. However, he intends to assure himself, by way of verification of his various personal estimates, that the total areas thus estimated in the case of each parcel of a topographical polygon, is equal indeed to their total area, which he knows already with sufficient accuracy, from the operation indicated as no. 3 of the table of cadastral operations. In any case, he has to wait for the proprietor's declaration before making the provisional registration of this characteristic final.

The indications of classification and mode of tenure are provisional, because the final entries correspond with the periods of valuation and declaration.

It may happen that the parcels are not homogeneous either in quality (mode of cultivation or other use), or in their classification (intensity of production) and then they are divided into smaller parcels representing these differences, the areas of which are also measured. However, if these subdivisions are still very large, as one can never hope that the declaration of the landlord will give anything but a very vague indication of the area of each, the tracing of the lines of the polygon separating the various crops and the various degrees of intensity of production is proceeded with. Yet this kind of operation is exceptional, and it is marked with the same number in the corresponding table.

Period of Declarations. — In this period, the co-operation of landlords in the work of the cadastre, ceases to be representative and becomes direct and individual; they declare in a report, on oath, the characteristics of their holdings.

In general, the characteristics noted in these declarations agree with those arrived at by the office during the period of the survey work. If, by way of exception, there are some that do not quite agree, as necessarily this will be a case of material error, these characteristics are known, careful correction will be made until the disagreement disappears.

When the disagreement is in reference to the kind of tenure, it is also made to disappear. Therefore, there is again need of the intervention of the municipal executive council and the landowner, whose declarations will be considered and compared in open court. Whether there be disagreement or not, it is only after a favourable sentence has been given that the provisional entry can be made final.

In order that the area may be established definitely, a different course is pursued, whether or not there is disagreement between the indications furnished by the officer and the landholder's statement.

We have said that this officer makes a total of the areas that according to his personal estimation he assigns to each of the parcels of a polygon and that he corrects them, until, within certain limits permitted, this total is equal to that obtained for the polygon by means of the measurement of the plans. The same check is made use of in the case of the areas declared by the landholders. If, always within the same limits, the amount of the

areas is equal to that of the polygon, the entry in which the area declared by the landholder agrees with that arrived at by the personal estimation of the officer becomes final. When there is no agreement between the indications, it is obtained by means of a new declaration or a new examination or by direct measurement in case the disagreement continues.

When the total of the areas declared does not agree with that of the polygon, new declarations are asked for until an agreement is arrived at, and then the same course is followed as in the previous instance.

If, in spite of these second declarations, the amount of the areas do not correspond with that of the polygon, as a last resort, all the parcels contained are measured.

In order that there may be agreement between the recognised area of the parcels and that which has been declared by their owners, there must be added to all these operations that of the comparison of the declaration.

The classification of the characteristics provisionally given in the period of survey operations, is made final if it agrees with the classification declared. If it is not final from the administrative point of view, it is for the superior officer of the official employed for the cadastre to decide, after hearing both sides and the municipal executive committee. Against his decision, there is the usual appeal allowed in Spanish administrative law.

As this characteristic is closely connected with the valuation, and since it is included in the economic group, it is made definite at the same time as the valuation and in the same manner: it is only exceptionally that an independent course is followed.

Period of Valuation. The land tax in Spain is levied on all revenue derived from the cultivation of the land directly, or indirectly, by means of livestock improvement.

In this revenue is included:

- (a) revenue from the land and its permanent improvement;
- (b) The annual interest on capital intended for the cultivation of the soil or for the livestock it may support, or needed for agricultural work;
- (c) The profits of the agriculturist or livestock improver.

To determine the amount of this revenue, balance sheets are prepared showing the gross annual produce corresponding with each degree of intensity of production for each class of cultivation, in relation to the unit of area and the expenditure necessary to obtain the produce. The expenditure is classified as follows:

Actual Annual Expenditure	{	on Human Labour
		„ Animal Labour
		„ Manure and Seeds
		„ Irrigation
		„ Insurance
Extinction of Debt	{	„ Furniture and Agricultural Implements
		„ Buildings and Improvements

The difference between the two gives the net yield. This analytical and direct method for establishing the net yield has been abandoned, in practice it presents many inconveniences, amongst others the difficulty of attaining uniformity in the principles on which the various officers engaged with the valuation proceed.

To arrive at this uniformity, technical accuracy has been somewhat sacrificed; a synthetic system has been followed for the direct calculation of each of the three elements of the net revenue. The revenue is calculated from rental information or from documents, the interest from the capital of the land by means of direct calculation (easier than in the case of the gross production), and the adoption of a uniform rate or one of the fluctuations of which are regulated in advance, and the profits of the farmer, on the supposition that they form such or such a percentage of the capital for working expenses, which may also be established in advance; there is thus also a typical quantity for each class of cultivation varying generally inversely with the degree of intensity of cultivation (1).

These individual valuations are in relation to each of the terms of the scale of classes of cultivation and degrees of intensity prepared by the cadastre officials for each municipal district with the intervention of the respective local executive committees. In order to obtain as nearly as possible a uniform standard for an entire province, this work of valuation is not directed to the officials of the cadastre individually, but by all those of the province together, with the addition of the officials of the adjacent provinces. They are all jointly responsible for all the valuations.

The agreement once come to between the officials and the municipal executive councils in regard to the table of classes of cultivation and degrees of intensity of production, and with regard to the types of valuation per hectare, publication is made of the results obtained, so that any complaints may be sent in. When examination has been made of these and a settlement come to, the last operation of the preliminary cadastre undertaken, that of the *total valuations*, namely the application of typical estimates corresponding with each of the parcels or their subdivisions, by multiplying their *areas* by the respective units of value.

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The principal documents making up the preliminary cadastre of agricultural wealth and livestock in each municipal district are as follows:

(a) A plan of the district on the scale of 1 in 25,000, on which are marked numerical order all the polygons into which it is divided by roads and terways.

(1) This mode of valuation is not that enjoined by the law of March 23rd., 1906. The law of December 29th., 1910 authorized the Minister of Finance to vary the methods of valuation established by the previous law, rendering them more simple, and this variation is entered in the regulations of October 23rd., 1913.

(b) A tracing of the parcels for each polygon, on which, on the same scale of 1 in 12,500 are shown the details of the parcels and their subdivisions, their numerical order on the polygon and the indications of the crops and the various classes of land.

(c) The table of valuation types referring to the various kinds of cultivation and the various degrees of intensity of production in each case.

(d) The cadastral folios, one for each parcel, on which all their characteristics are shown and the administrative action preceding their final registration. These folios are preserved in the archives in their numerical order.

(e) The cadastral register, in which are noted, in the order of the polygons, their description for cadastral purposes, the physical and economic characteristics of their parcels and a summary of the areas to which each type of valuation has been applied.

This book has at the end a sufficient number of blank pages on which to note the variations that may occur in the characteristics of the parcels registered in it.

(f) The land book in which note is made of the legal characteristics in the same order as in the previously mentioned book. This book also contains blank pages in view of future changes.

The reason for noting the kind of tenure in a separate book, is the excessive variation of this characteristic in comparison with the others.

(g) The schedules of real estate, one for each holding, on which are shown all the parcels within the municipal jurisdiction, with only those details indispensable for the collection of the tax.

These schedules are preserved in the archives in alphabetical order of the names of the landowners.

The variations to which the characteristics are continually subject necessitate the addition to the corresponding detailed tracings of pages of plans showing these alterations, the cancellation of the corresponding entries in the cadastre register and the land register, with addition of new entries on the blank leaves, as the alterations take place, and the substitution of the leaves of the cadastre and schedules of holdings, by other equivalents, on which the new characteristics are entered.

Fiscal Period. — When once the preliminary cadastre is completed, the period of its application, which is almost exclusively fiscal, begins. It is easy to understand, in fact, that its applications are very rare for legal purposes, for the parcels have not been bounded in a legal sense; nor have their limits been fixed on the spot, and account has not been taken of them when registering the state of possession (not that of ownership), and finally, only the declaration of the presumptive owner has been given and only on condition of its not being impugned by the municipal executive committee or any other proprietor.

However, the law of 1906 requires that the evolution of the cadastre shall not be arrested at this point. It requires that, once the preliminary cadastre is terminated, it be gradually transformed into a detailed cadastre. But as it leaves the procedure to be followed for this transformation rather ob-

re, no advance has been made beyond ensuring that until a new and effective law is applied, of all the usefulness to society that may be anticipated in its high cost, there will be no other remedy than to make provision in the law for the course to be followed for fixing the limits of the parcels permanently and in such a way that verification may be easy, for *accuracy* regard to the *extent* of the area is not so necessary as *legally strict* limits and their *practical permanence*.

Unfortunately, public opinion in Spain even among the technical staff of the cadastre, is somewhat confused, owing to this aspect which has been alien to the cadastre. When the public speak of the detailed cadastre itself, they give by that expression a great and decisive importance to topographic accuracy for fixing the area; on the contrary, they scarcely think of the legal boundaries, without which, however, this accuracy, always at the mercy of eventual or disadvantageous variations of the limits, is absolutely useless.

* * *

Present State of the Work and the Expenditure Entailed.

Since 1895, the work of the preparation of plans, temporarily separated from that for the map, has been in course, with a view to the operations we have dealt with above, which were the subject of various bills before the existing law. Since 1902, after a short application of the cadastre for cultivated areas, but only in certain provinces, the agronomic work of the preliminary Cadastre, as defined by law of March 23rd., 1906 and the regulations of October 23rd., 1913, have been in course.

At the Department of Finance, the work for a preliminary cadastre of urban property has also been entered upon, but, although included under the same law, it is of too different a character to be dealt with in this study.

Under the regulations for this law, the work required for this preliminary cadastre had no effect on the total taxation of a province until the whole work was terminated. The work in the provinces of Albacete, Ciudad Real and Cordova was thus terminated. However, the law of December 29th., 1910 provides that when a municipal district approves the preliminary cadastre, the full tax of 14 % on the taxable wealth, will be reduced in it instead of 19 % as formerly. In this way it has been possible for the preliminary cadastre to come into force in many districts of provinces in which the work was in course of execution, even before it was terminated in all the districts of the province.

The following table will help to give an idea of the State of the work on January 1st., 1913:

	Hectares	Parcels	Subdivisions of Parcs
Portion accomplished, as far as concerns the Surveying work alone,	902,380	290,911	383,012
Portion accomplished, as far as concerns the Surveying and the Declarations	2,335,493	352,021	1,014,586
Portion accomplished, as far as concerns the Surveying, Declarations, and Valuation . .	440,437	196,244	221,640
Portion, completely terminated, in which the fiscal application is in full force	7,932,217	1,786,563	2,485,448
Total . . .	11,610,437	3,126,139	4,104,077

The area on which the taxes were paid in conformity with the cadastre consisted at that date of 664 municipal districts, with 375,935 landowners. The fluid revenue serving as a basis of taxation was 138,354,598 pesetas.

These municipal districts belonged to the following provinces:

Albacete	in the ancient Kingdom of	Murcia
Alicante	" " " " " "	Valencia
Cadiz	" " " " " "	Andalusia
Cordova	" " " " " "	"
Jaen.	" " " " " "	"
Seville	" " " " " "	"
Ciudad-Real	" " " " " "	New-Castile
Madrid.	" " " " " "	"
Toledo	" " " " " "	"

The rest of the cadastral operations commenced had been begun in some of these provinces, as follows:

Malaga	of the ancient Kingdom of	Andalusia
Almeria	" " " " " "	"
Huelva	" " " " " "	"
Granada	" " " " " "	"
Murcia	" " " " " "	Murcia
Caceres	" " " " " "	Extremadura
Badajoz	" " " " " "	"

In order to find the cost of these operations, it has been calculated in the statistical offices that the area in the corresponding table, where it is divided according to the various degrees in which the cadastre has been completed, might correspond in point of view of expenditure, with 10,743,374 ha. in a position to pay the land tax. As, according to the statistics, and

amount of 14,053,743 pesetas has been spent on the agronomic work, the rate of expenditure is 1 peseta 31 per ha.

The result from the fiscal point of view is an increase of 17.8 % in the basis of taxation.

The objections presented against the results, account being taken of the area affected by the complaints, relate to 8.8 % of such area. If instead of the area, we consider the number of parcels, the proportion is only 8 %, and, if we consider the number of landholders, it is 6.5 %.

Finally, as regards the legislation, the work carried out for the preliminary cadastre is based on the above mentioned law of March 23rd., 1906, partially modified by that of December 29th., 1910, and the Regulations for the technical service of October 23rd., 1913.

FRANCE.

NEW VALUATION OF UNBUILT ON LAND.

PART. I.

VALUATION PROCEDURE.

OFFICIAL SOURCE.

REPORT OF M. CHARLES DUMONT, MINISTER OF FINANCE, on the Entire Work of Valuation of Unbuilt on Landed Properties, ordered by article 3 of the Law of December 31st., 1890

§ 1. INTRODUCTION.

The yield of the soil has always been one of the chief sources of government revenue. When, in 1894, M. Poincaré, at that time Minister of Finance resolved to convert the land tax on unbuilt on land into a tax on net yield of the land, he first caused the principle of a new valuation of unbuilt on land to be approved by Parliament in article 4 of the law of July 21st., 1894.

From the date of the promulgation of that law, the Department of Direct Taxation undertook to study the most suitable means for ensuring the execution of the work under the most favourable conditions possible.

It tried first to calculate the whole income of each landholder from his land according to the nature of his farm. This system gave very unsatisfactory results, as it was based upon the statements of the parties concerned or on the calculations of local commissions. The Government was thus led to recognise that in order to ascertain the taxable revenue of the various tax payers with sufficient accuracy, it was necessary to have detailed estimates.

A new experiment made in this sense in fact gave practical results and it was applied by way of trial in one commune in each department.

According to this system, for the new valuation four essential operations were necessary :

(a) Division of the kinds of farm in classes varying with the fertility of the soil, and the establishment of the net average yield per ha. in each class

(b) Distribution of all the parcels of the area among these different classes ;

(c) Comparison in the case of a certain number of farms of the net revenue as resulting from the valuation scale and the net revenue as shown the contract of lease;

(d) Communication of the results of the classification to the landowners.

A proposal for the adoption of this method was embodied in a bill laid before Parliament by M. Ribot, Minister of Finance, on October 11th, 1895, but it was not discussed and was again submitted in turn, but with no better success, by M. Doumer in 1896 and M. Cochery in 1896 and 1897.

And a bill on the same subject, proposed by M. Paul Constans in the Chamber on March 12th., 1903, had no better success.

Then M. Poincaré, again Minister of Finance, made a new effort with a view to the reform of the land tax, the principle of which he had himself laid down in 1894. For this purpose, he inserted an article in the Finance Bill for 1907, laid before Parliament on June 24th., 1906, conceived as follows: "The Department of Direct Taxation shall proceed to a new estimation of the yield from unbuilt on land in all the communes, beginning with those in which the municipal councils make request for the carrying out of the work. The new estimation shall be made and the conclusions applied in each commune as the operations are completed, under the conditions provided for in the laws and regulations relating to the cadastre..."

This article separated two operations that had been up to then considered necessarily connected, the equalisation of taxation in the case of the total contributions of the commune and in that of individuals; it thus permitted of the immediate removal of inequalities in the taxes paid by different taxpayers in the same commune without it being necessary to wait for general equalisation or a transformation of the land tax.

But it met with serious opposition from the Committee on the Estimates and was not approved.

M. Cailloux, M. Poincaré's successor, returned to the subject in the bill for the suppression of direct taxation and the introduction of a general income tax and a supplementary tax on the total yield of the land, proposed by him on February 7th., 1907.

Without waiting for the vote on this bill, it was decided, in view of the urgent need of the reform, to include the provisions relating to the new valuation of unbuilt on land in a special bill, which was proposed on November 21st., 1907; it came up for discussion in the Chamber on December 6th. and in the Senate on December 28th.

After lively discussion, it was recognised that it would be dangerous to hamper the Government by too many formalities and that it was wisest to leave it to settle, as experience should dictate, the best methods to adopt, in which it must give account to Parliament.

Consequently, article 3 of the law of December 31st., 1907 was conceived as follows: "The operations prescribed by article 4 of the law of July 21st., 1904 shall be immediately put in hand, the cost being paid out of the 100,000 frs. credit opened to the Department of Finance. They shall have

it for their object to fix the present net yield of unbuilt on landed properties.

In each commune, valuation shall be made of the separate farms, in accordance with a scale based on the nature of the crops and the holdings or based on authentic deeds of lease or verbal contracts of lease duly registered.

The results of these operations shall be communicated to those concerned, who shall be allowed a period of two months in which to make objections (1).

Notice shall be given every year, in a report distributed to the Chambers and published in the *Journal officiel*, of the work carried on and the methods followed."

This text was further completed by article 2 of the law of December 26th., 1908 providing that "in the course of the operations prescribed by article 3 of the law of December 31st., 1907, no valuation shall be made of ground built on, nor of that forming an immediate and indispensable adjunct to buildings."

It is in terms of these provisions that the operations of which we are now about to speak were carried out.

§ 2. ADMINISTRATIVE PROCEDURE.

In accordance with article 3 of the law of December 31st., 1907, the object of the new valuation is "to determine the present net revenue of unbuilt on landed properties."

The law does not define the "net revenue" that has to be discovered but the debates preceding the vote on the law clearly show that by this expression is to be understood the rental value of the land, that is to say the rent the landholder derives from his real estate when he lets it, or, in case he works the land himself, what he might derive were he to let it. This value differs much from the net yield of the soil, which includes not only the rent of the land, but also the agricultural profits constituting the gain of the farmer working the land.

Under these conditions, the task first of all incumbent on the financial department was to discover the most appropriate methods for ascertaining as rapidly as possible, the precise rental value of unbuilt on land.

I. — TEMPORARY INSTRUCTIONS. — The general Department of Direct Taxation immediately set to work and prepared a scheme for the organ-

(1) This paragraph was modified by article 2 of the law of April 8th., 1910, thus conceived: The results of the valuations shall be communicated to those concerned, who may, within the term of one month, ask for documents to be communicated to them showing the details of the work of valuation per farm and demand copies of the said documents. The parties concerned shall be allowed a term of two months from date of the communication of the documents, in which to make their objections in writing.

ation of the work, providing for the utilisation of the assistance not only of the agents of the department of direct taxation, too few alone to range for the completion of the valuation within the very short term provided for, but also of collectors and of municipal clerks.

The work had to be carried out as follows:

The municipal clerks were entrusted with the initial duty of investigating with the assistance of the parties concerned the changes made in the way of cultivating the land since the establishment of the cadastre.

Furnished with this information, the head officers of the direct taxation offices prepared a statement of the real estate of each landholder, classifying the holdings according to position and the nature of their cultivation.

The valuation properly so called was then undertaken. At first a valuation scale was prepared. For this purpose, the superintendent, with the help of assessors, first of all enquired what kinds of farm were represented in the commune and settled the number of classes that should be made in each case with a view to the varying yield of the land; he then chose for each class a typical holding as representing the average value of the class, selecting it as far as might be from among the rented holdings. The rental value per hectare given by the typical holding was then entered on the list to serve as the basis for the valuation of all holdings and was later included in the same group and class.

Then the collector, also assisted by assessors, proceeded to group the holdings in various classes according to the scale. All parcels of the same kind possessed by one land holder in one place were classed together.

When the classification was complete, the superintendent went again to the commune, where he calculated, with the help of assessors, the rental value of the holdings leased, on the one hand in accordance with the rental stipulated in the contracts, on the other hand in accordance with the scale. He then compared the results of the classification; he enquired into the causes of the differences revealed by this operation, and made any corrections considered necessary in the scale.

The valuation properly so called being thus finished, it was still necessary, before determining the final results, to proceed to the calculation of the total value of all real estate according to the classification, the division of the holdings according to the manner of working, the communication of the valuations to the owners and the consideration of the objections sent by them.

This procedure was first applied in the commune of Laroche-Saint-Hippolyte (Yonne), where it seemed to give satisfactory results and afterwards in two communes in each department. Experience revealed the defects which were remedied by the following changes.

(a) *Substitution of collectors of taxes for the municipal clerks.* — In spite of the zeal and activity shown by them in the work in connection with the valuations, the municipal clerks did not seem always able, in view of their manifold duties, to give the department sufficient assistance in complet-

ing the work as rapidly as was desirable and it was decided to substitute the collectors of taxes.

(b) *Transfer of the work of classification to the charge of the superintendents.* — As it had been recognised necessary, in order to ensure the great accuracy in the valuations, to have all the work of valuation properly called done by one and the same officer, the duty of classifying the holdings was taken from the collectors and assigned to the superintendents who were already charged to prepare the valuation scales.

(c) *Substitution of classifiers for assessors.* — It appeared in the course of the experiments, that many of the members of the commissions of assessors were not sufficiently skilled in the matter of land valuation and it was considered advisable, under these circumstances, to give the superintendents the assistance of committees of classifiers, composed entirely of landowners, metayers or farm managers.

(d) *Grouping and classification of holdings.* — Finally, the system of grouping adopted not seeming suitable in every case for the rapid and satisfactory performance of the work of classification, a new method was substituted, namely the grouping of the parcels according to owners and the leaves of the cadastral plan. According to this system, all the real estate belonging to a landowner had, before any other operation, to be entered together, by the head officers, with the assistance of the cadastral register, on separate forms for each leaf of the plan. On these forms, then, note was made by the collectors of any change in the mode of farming, and they were then used by the superintendents for the purposes of the classification, after having been arranged according to the leaves of the plan and according to the position of the holdings.

On November 20th., 1898, the special commission instituted at the Finance Department gave its entire approval to the procedure established on condition that the course to be followed in the estimation of woodland should only be finally settled after consultation with delegates of the department of waters and forests. The latter adhered to the proposals; but, in case Parliament should wish to grant special concessions to long term forestry undertakings, they asked that in the course of the work it should be ascertained, independently of the real revenue from the felled grown trees, what the yield would be were the land planted for copse wood.

This idea being approved by the Commission, the instructions were completed by a clause to this effect: they were also brought into accordance with the new decision embodied in the Financial Law of December 26th. 1908, to the effect that no value was to be assigned to the ground built on or forming an immediate adjunct to buildings: they were approved by the Minister of Finance on December 31st., 1908.

II. — FINAL INSTRUCTIONS. — The Ministerial Instructions of December 31st., 1908, containing the rules ultimately applied in establishing the real revenue or rental value of unbuilt on land, divided the work of valuation into preparatory work, examination of the kind of farming, valuation properly so called, and ulterior operations, according to the order of their performance.

Preparatory work. — This work, performed in the direct taxation offices, is the preparation of the documents required for the operations in the communes. With the help of the cadastral registers, all the holdings belonging to each tax payer were grouped together, according to the leaves of the plan; or, in other words, all the parcels entered in the cadastre were now grouped together on different valuation sheets for each leaf of the plan. These sheets were then sorted according to owners and finally summarised for the whole commune.

Examination of the kind of farming. — After the preparation of the documents in the above manner, the officers in charge communicated them to the collectors, together with extracts from the contracts of lease dating to the last ten years supplied by the registrars. The collectors had to find out the alterations made in the manner of cultivating the holdings since their registration in the cadastre, and to show on the sheets the real manner of their cultivation; they had also to note on the extracts from the deeds of lease the designations given in the cadastre to the parcels therein dealt with, so as to allow of the identification of the holdings leased and of the farms being distinguished from each other. They were assisted in this twofold work by the landlords, assembled in advance by means of publicly posted advertisements or private letters, or, in default of the landlords, by the persons best informed with regard to the communal land.

The work of valuation properly so-called. — This work was entirely carried out by the superintendents of direct taxation immediately after the accomplishment of the preliminary operations with which the collectors were charged. The superintendents first of all collected from the public departments all information that might be useful with regard to the value of unbuilt on land and then visited the communes, where they proceeded, in conjunction with the classification committees, as follows:

After preparation of a complete list of the kinds of cultivation carried on in the commune, they settled the number of classes to be assigned for each of these kinds of cultivation, taking into account the various degrees of fertility of the soil, the value of the produce and the situation of the holdings. Then they established a provisional valuation scale, showing the average rental value and market price per hectare for each class and they proceeded to classify the landed estates in the various categories corresponding with the scale.

The superintendents and classifiers then, with the help of the contracts of lease, estimated the value of the holdings leased and compared the results with those obtained by means of the classification. Theoretically, the methods should evidently lead to estimates consistent with each other, but, when this was not the case, the superintendents had carefully to investigate the causes of the difference revealed by the comparison, and make the necessary corrections in the valuation scale or in the classification, according to circumstances.

Ultterior work. — After the completion of the work of valuation properly so called, the scale of valuation was examined by the inspectors of direct taxation and definitely fixed by the officers in charge. These officers

then proceeded with the calculation of the rental value of all the parcels; then they forwarded the documents to the superintendents who had to apportion these rental values per farm in the case of holdings for which there were contracts of lease in course. Finally, the same officers wrote and despatched letters communicating the results of the valuation to the parties concerned.

After the expiration of the period allowed to the latter to make their objections, these were carefully examined by the superintendents and classifiers, after which the head officers made the necessary corrections in their papers and prepared a table giving the general results of the work for each commune per landholder.

Such are, in outline, the methods adopted for the carrying out of the work in connection with the valuation. This analysis gives us a sufficient idea of the general lines of the system followed. It will, however, be very useful to add a few details in explanation in regard to the most important and most delicate part of the work, that is to say the establishment of the scale.

The following explanations are consequently intended to show the difficulties that had to be surmounted in this connection and the steps taken to overcome them.

Establishment of the scale. — It was first of all necessary for the superintendents charged with the establishment of the scale to proceed to study attentively the special conditions of agricultural holdings in each of the communes in which they had to work. To this end, it was enjoined on them not to visit the communes to ensure the actual execution of the work, till they had collected all the data necessary to enable them to guide the classifiers in their deliberations with profit and with authority.

The average rental values per hectare shown on the scale were at first inferred from the information supplied by the contracts of lease entered into under ordinary conditions, as far as possible in the case of holdings of average size situated in the commune.

When sufficient information could not be obtained from these, it became necessary to make use of documents of the same character relating to land in the neighbouring communes.

Finally, in default of documents, the average rental value per hectare was fixed either by means of a comparison, or by calculating interest on the market price ascertained from deeds of transfer, or by a direct estimation, calculating the net yield of the holdings and deducting the amount of the farm profits.

The average values per hectare to be shown on the scale were calculated according to similar methods.

These general rules sufficed to enable the agents to fix the net revenue of such real estate as is usually leased by contract, as this revenue is nothing else but its rental value. But it was necessary to give the technical staff accurate information in regard to the methods to be followed in order to ascertain this net revenue in the case of certain classes of holdings not habitually leased. We shall take as an example forest holdings.

These have not a rental value, strictly speaking, as their revenue is derived from the value of the wood cut. It is this revenue, less the cost of maintenance, management, protection and plantation, that in the Ministerial Order is considered as the net yield.

In fact the exploitation of a forest requires neither annual cultivation, investment of capital; the intervention of the landlord is limited to acts of supervision and administration that may be paralleled with those performed either by the householder who himself administers his real estate or the capitalist concerned with personal estate securities. This kind of exploitation, is not, therefore, like the working of other landed estate, a real profession and, thus, there could be no question of deducting from the revenue from the cuttings anything under the head of agricultural profits.

Indeed, the net revenue of forest holdings, as above defined, is only collected periodically. Now, it was indispensable, in view of the annual incidence of the land tax and the necessity of ensuring a regular annual revenue to the departments and communes, to subject the forests to an annual charge. It was consequently necessary to find the annual revenue by means of the periodical yield from the cuttings. The Ministerial instructions therefore ordered that the value of the cuttings should be fixed by the age of the trees, the yield of copsewood and forest trees being for the purpose considered separately.

This method, indeed, is adapted to meet the case, for forests indisputably yield an annual revenue consisting in the value of all their plants. This revenue, it is true, cannot be collected in kind from the year of production, the market value only begins after a certain time; it is no less certain, however, that this annual revenue exists and adds to the value of the land, and thus is a definite gain to the land holder. This is so true that in case of sale of wooded land, the price of sale is fixed with due regard to the annual increase of the wood on the land and the seller thus receives the full value of his wood without having to wait for the usual date of its cutting.

It has been objected against this system of valuation that it obliges the forest proprietors to pay a tax on revenue they have not yet received. There would be foundation for the objection if the wooded land were taxed from the date of plantation, but this is not the case. In fact, under the present legislative system, forests newly sown or planted are exempt, entirely or almost so, from the land tax for thirty years (1), a period more than sufficient to ensure the proprietor the receipt of the yield of the first cutting and it is not to be doubted that this law will continue in force. Under these conditions, the taxation of the forest will continue to be based, as it has always been, not on revenue to be collected, but on that actually collected.

(1) The exemptions granted on behalf of reafforested land are now regulated; 1st., by Article 226 of the forestry code, which exempts from the land tax, for a period of thirty years, plots and forest plantations on the summits and slopes of mountains, on sand hills and moor land; 2nd., by article 3 of the law of March 29th, 1897, which reduces the land tax on land planted or sown for forests by $\frac{3}{4}$ for the first thirty years.

If, on the other hand, account be taken of the fact that the tax corresponding with a cutting is paid in accordance with a graduated scale in the whole period of the growth of the wood for the next cutting, we see that really the Treasury rather allows the landowner time to pay his debt.

In addition, the forest proprietors are to receive a further advantage from the mode of taxation contemplated in the bill for fiscal reform already voted by the Chamber. In accordance with this bill, forest land would only be taxed, like any other land, to the extent of $\frac{1}{6}$ of its revenue. As the forest owners have not to bear any of the charges (costs of maintenance of rural buildings and repayment of the debt on them, risks of leasing or not receiving rent), on account of which this reduction was justified in the case of other land holders, and as, on the other hand, the special burdens they have to bear have been deducted from the gross yield of their land, they will be in a privileged condition compared with the other tax payers.

Examination of the scales of valuation. — Although all the precautionary measures above mentioned might have been applied for the establishment of the scales of valuation, it was still necessary to ascertain the accuracy of the valuations therein registered.

As the scales had to serve to calculate the rental value of all the real estate in each commune without exception, whether leased or not, a firm mode of verification was contemplated, consisting in the comparison, in the case of rented holdings, of the values thus obtained and the real rent as shown in the contracts of lease.

That such verification might be possible, the contracts of lease had first to be examined to find the net yield, that is to say from the rate shown in the deeds the net rental value of the unbuilt on land dealt with therein had to be discovered. Now, this operation, although simple in appearance, now the less gave rise to serious difficulties.

The contracts which could be utilised for the purpose may be grouped in two principal classes: contracts of leases, in which the payment is generally made in money and sometimes in a fixed quantity of the produce, and metairie contracts, in which the profits are shared between the lessor and the farmer, in varying proportion fixed in the contracts themselves.

But these definitions only apply to either class of contracts in a general sense; in reality, the deeds show very different forms according to the districts in which they are passed.

Among leases presenting interesting peculiarities, let us mention:

Contracts of tenancy at will, still in use in the Côte-du-Nord, Finistère and Morbihan, in principle contracts of 'ease, though the landowner also sells the farmer the buildings and areas existing on the farm for a period contemplated in the deeds. The annual rent is generally low, but the lessor keeps the right to give the farmer notice to quit or to evict him at the expiration of the period agreed on, refunding him the value fixed by experts of the buildings and areas, in other words of all constructions etc. raised on the ground.

Special contracts *à complant* in the case of vineyard leases are met with in various departments, especially in Loire-Inférieure and la Vendée. By these contracts, which come under the head of metairie contracts, land is lent to the farmer for a period limited only by the life of the vines, on the twofold condition of planting or keeping up the vineyard and giving the landlord a definite portion of the crop. These leases are hereditary and give the farmer the right of disposing of his original usufruct by sale, bequest or grant.

Contracts *à bordage*, peculiar to the Perche district, give a stock farmer (*gardier*) the right to lodge and pasture his livestock on a holding, cultivated either by the owner or a tenant farmer, who only retains possession of the land, as the owner of the livestock has a right to the forage and straw on which he feeds his stock.

According to the contracts of *terres à marché* in the Somme, the tenant taking possession gives the proprietor a certain sum and he is then deterred from selling or letting to any one else except the tenant, any of the land being leased, unless it be with the tenant's consent.

Again all these contracts, whatever their form, are very frequently complicated by special clauses which influence the rent itself, by the reservation of certain advantages to the parties or by the imposition of certain charges.

Among the clauses most frequently met with are those referring to stock (supply of livestock and farm requisites by the proprietor); payment of taxes of every kind on the land and insurance premiums; the performance by the lessee of services (ploughing, carting etc.) or the payment by him of dues (eggs, poultry, vegetables etc.) to the lessor.

Independently of these general clauses there are others special to certain districts. Such are, for example, in the department of Côtes-du-Nord, the obligation by the lessor to the lessee of certain quantities of straw, hay and grain, on conditions of equivalent quantities of the same being returned at the expiration of the lease; in the department of Manche, the obligation on the part of the tenant to plant apple trees in the meadows, on condition of the landlord paying the price; in the arrondissement of Millau, the obligation binding the tenant to continue the supply of milk for making Neufort cheese, whilst the landlord undertakes to guarantee to keep the price of the milk the same for the whole term of the lease.

Naturally, the Ministerial Instructions of December 31st., 1908 could not consider all the clauses and conditions that might be inserted in contracts of lease; they were limited to indications as to the course to be pursued by the agents in order to ascertain the net revenue in the cases most generally met with.

As regards metairie contracts, which, in certain regions, represent almost the only system of lease, order was given to find out the average amount of grain and other produce annually delivered to the landlord by the metayer, and being had to the proportion laid down in the contract and then to calculate, in accordance with the official list of prices adopted by the regis-

tration service for the last ten years, the amount of these dues that might be considered as rent.

On the other hand, it was specified that to the rent there should be added the charges legally due to the landlord, when, by virtue of the agreement such charges were imposed on the lessee, as well as, if need be, the value of the services rendered and dues paid by the tenant farmer, but that, on the other hand, deduction should be made from the rent, as shown in the deeds of the interest on stock and the value of buildings (houses, workshops and farm buildings) and that of the moveables mentioned in the deeds.

Finally, the agents had first of all to interpret the clauses of the deeds so as to know what influence they had in fixing the rent and then to estimate the increases or deductions to be made in order to arrive at as accurate an idea as possible of the rental value.

Besides, as the contracts of lease often refer to holdings extending over many communes and as the valuation is made per commune, the superintendents were, in such cases, obliged to calculate the portion of the rent in the real estate situated in the commune where the operations were being carried out, a matter not always easy, even in case of contracts of lease not containing special clauses.

The work of ascertaining the rental value thus presented serious difficulties and demanded minute attention as well as a profound study of the contracts. If we add to this that the rents are often shown in the contracts at less than their real value and, also, as many departmental directors have found, they vary with the kind of farm (large, medium sized or small farms), we see how difficult in many cases it may be to ascertain from a contract of lease the real rental value of the land in question.

It is none the less true that, taken altogether, the contracts of lease allow of our learning with sufficient accuracy the average rental value of the holdings and that thus they are a very effectual means of checking the figures of the scale.

It is to be observed, however, that this system of check was wanting in the case of those communes for which the deeds were not forthcoming at all or only in very small number. On the other hand, even as regards those communes where the investigations for ascertaining the net revenue could be carried out in the case of an appreciable number of contracts, there might be certain errors due either to want of experience of agents new to the work or to the district or to the lack of competence of certain local commissions or to an imperfect appreciation on their part of the object and import of the work of valuation. Finally, if these investigations guaranteed, at first, the uniformity of the valuation in each commune, they did not necessarily ensure that the scales would be in due proportion to each other in the different communes and departments.

Thus, the Ministerial Instructions of December 31st., 1908 provided for a second verification of the scales and entrusted it to the inspectors of direct taxation. These officers were charged in each department to examine with the greatest care the scales of all the communes and to assure themselves that the figures were accurate and reliable. They had, further, to

ceeded to compare the scales in order to see if the valuations were in proportion to each other in the various communes and lists. They had, finally, the same way, to compare the scales of their own department and those of the adjacent departments.

It was further the duty of the inspectors to propose any amendments they considered it advisable to make in the scales and to interchange with their colleagues the communications necessary to ensure an agreement between the valuations in the case of communes situated on each side of the departmental limits.

Thanks to this group of measures and the care taken by the various agents in carrying them out, the valuation scales, which are in some sort of a very firm framework of the large undertaking ordered by the law of December 31st, 1907, offer, there is no doubt, the best guarantee of accuracy in proportion.

These are, in brief, the methods which were followed by the officers engaged in the work for the new valuation.

Let us add that the holdings to be valued in this way correspond with 140,226 land tax papers for 154,789,052 parcels. The operations were begun in the course of the year 1908, but, as that year was devoted to the preparation of the instructions and to their trial application in each department (to be precise in 169 communes), it is only since 1909 that the operations in question could take their normal course. They were fully completed in the first few months of 1913.

Availing themselves of the right granted them, 142,186 landlords made application for copies of the documents relating to their land. These applications led to the consignment of 172,120 abstracts relating to 14,929 parcels.

The number of landowners who made objections, whether they had previously made the above application or not, was 120,085.

The objections made affected 23,186 communes; their object was:

(a) Revision of the rental value, in the case of 104,500 holdings	
(b) Modification of the division of the rental	
per farm, in that of	3,958 ..
(c) Rectification of errors of apportionment, in	
of	24,072 ..
(d) Exemption from taxation, on the ground of	
plantations or reafforestation, in that of	3,827 ..

The results of the examination of the objections in regard to the rental may be summarised as follows:

The objections applied to 0.84 % of the total number of holdings, 0.1 % of their area and 4 % of their rental value.

In the case of the objections recognised as valid, these proportions were reduced to 0.22 %, 0.74 % and 0.69 % respectively. Finally, a comparison of the number, area and rental value of the holdings in regard to which the objections were entertained either altogether or in part, with the number, area and rental value of the whole number of holdings the valuation of which was disputed, gives the proportions respectively of 26 %, 19 % and 22 %.

All these statements are witnesses at once of the care and moderation with which the valuations were made ; they are of a nature to inspire confidence in the general results of the work.

(To be continued).

